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OLYMPIC
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SUMMARY PREHISTORY AND ETHNOGRAPHY
OF
OLYMPIC NATIONAL PARK
WASHINGTON

by

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INTRODUCTION

This report is a synthesis of available environmental, archeological, and anthropological literature augmented by a limited amount of fieldwork conducted in and around Olympic National Park, Washington. These research efforts were undertaken during the summer of 1982, when I was the archeologist on a research team which also included historians and architectural historians. I examined a number of published and unpublished documents pertinent to the Olympic Peninsula in particular and the Pacific Northwest in general, interviewed Park employees and other Peninsula residents, and also conducted archeological reconnaissance in the Park.

I will present first a general review of the environmental setting at Olympic, which will help place the subsequent sections into a physical context. Then I will discuss earlier archeological research conducted in and around the Park. For a number of reasons, actual archeological research in the Park has been limited, but investigations elsewhere on the Peninsula and in the greater Northwest have provided enough data to construct at least the broad outline of prehistory.

A large portion of the prehistory of the Park as presented in this report is highly speculative, since research at sites more than 3000 years old has been very limited. Therefore, this prehistory is not "etched in stone," but rather is a series of suggested trends which parallel cultural developments noted for other more well-studied regions in the Northwest. How those presumed trends are actually represented in the archeological record of the Olympic Peninsula awaits further testing and research.

The last two sections of this report outline Northwest Coast aboriginal culture in general terms and then present specific details about the several Native American groups who lived in and around present-day Olympic National Park. Because those native cultures shared certain important similarities, I have included a general cultural overview to avoid redundancy in the report. Also, since many non-anthropologists are unfamiliar with Northwest Coast Indian culture, I felt this would be a good opportunity to present the basics. Perhaps the very best way to describe native culture would be to prepare and present detailed ethnohistories of each group, but such an effort was far beyond the scope and means of this project. The last two sections, then, constitute a summary ethnography, or description, of Native American culture as it probably was at and shortly after the time of white contact. Culture is very complex and difficult to describe succinctly, and I must apologize at this time for any

omissions or deficiencies which might be apparent to modern-day Native American inhabitants of the Peninsula.

I. ENVIRONMENTAL CONTEXT

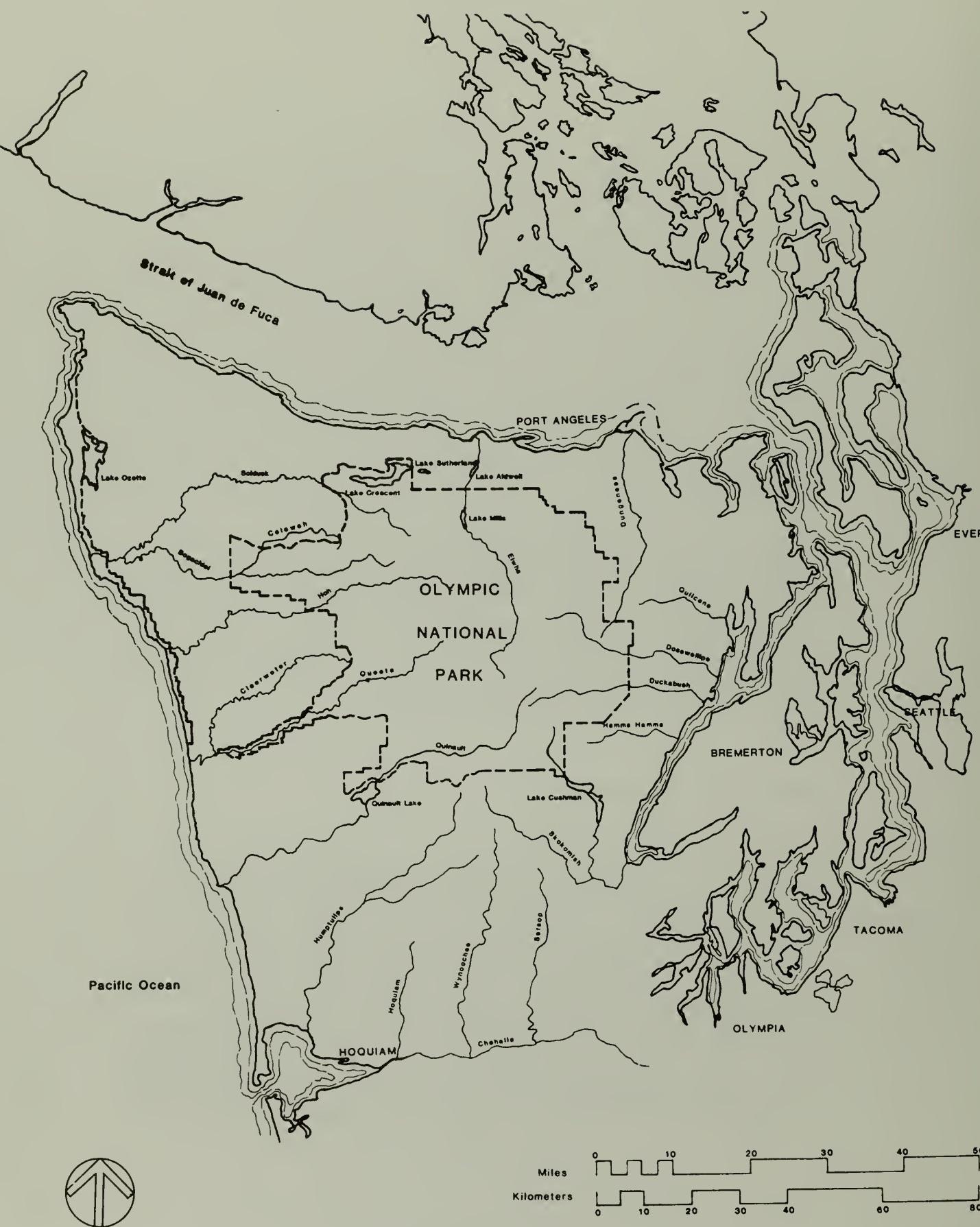
Introduction

A review of the diverse environments and various natural resources of the area now encompassed by Olympic National Park will help set discussions of the aboriginal groups which used the land into a physical context. To that end the report examines the physiography, climate, plant life-zones and culturally meaningful flora and fauna of the Park. The material presented in this section is taken largely from Warren (1982), Tabor (1975), Danner (1955), and Wessen (1978a).

Geography and Physiography

Olympic National Park, with an area of 1420 square miles, is composed of two irregularly shaped, discontiguous portions of land on the Olympic Peninsula of Western Washington (see Figure 1). The first is a narrow strip along the Pacific Ocean, approximately 57 miles in length, extending south from Shi Shi Beach, near Cape Flattery, to the northern boundary of the Quinault Indian Reservation. The second and much larger portion of land consists of about 1380 square miles in the rugged, mountainous interior of the Peninsula, and is in large measure a roadless wilderness containing most of the major peaks and ridges of the Olympic Mountains. Thus, the Park is an environmentally diverse entity, ranging in elevation from sea level on the coast to nearly 8000 feet on Mount Olympus (see Plate 1).

Figure 1



Olympic National Park and Vicinity

Plate 1



Courtesy of Rowland W. Tabor,
U.S. Geological Survey

Satellite Photomosaic of the
Olympic Peninsula

The Olympic Mountains have been described as "an unorderly array of steep-sided, jagged ridges" (Danner 1955:12). Roughly, they trend northwest to southeast, and are predominantly composed of marine sedimentary rocks which are nearly encircled by the Crescent formation, composed of marine basalts. According to widely accepted hypotheses, the marine sediments and basalts were skinned off the oceanic crust and added to the ancient continental coast (Rau 1973). All of those sedimentary and volcanic rock formations have been subjected to such uplift and folding that "they represent some of the most complicated geology found anywhere in the world" (Danner 1955:34).

As the underlying lava dome with associated sedimentary and volcanic rocks rose (beginning about 12 million years before present), the emergent Olympics intercepted precipitation derived from the Pacific Ocean, and streams formed, radiating from the center of the mountains near the present-day Elwha River (Tabor 1975). Erosion from precipitation, Pleistocene glacial advances and recessions and Holocene alpine glaciation have resulted in the present-day river systems which drain the Olympic Peninsula. Their waters are derived from melting snowfields and alpine glaciers. Those river systems and the cardinal directions of their flows are:

West: Soleduck, Clearwater, Calawah, Bogachiel, Hoh, Queets and Quinault

South: Humptulips, Hoquiam, Wynoochee and Satsop

East: Skokomish, Hamma Hamma, Duckabush, Dosewallips and Quilcene

North: Dungeness and Elwha

Glaciation and differential erosion of bedrock and glacially-derived sediments have been the dominant agents in the creation of the present rugged topography of the interior portion of the park. On the coast, continual wave erosion, at times dramatically accelerated by severe winter storms, has caused the recession of cliffs and shoreline creating the numerous islets, sea stacks and dangerous rock reefs so characteristic of the Pacific Coast of northern Washington today.

Several large fresh-water lakes exist in or near Olympic National Park. They are: Lakes Crescent and Sutherland to the north, artificially enlarged Lake Cushman to the southeast, Lake Ozette bordering the coastal strip, and Lake Quinault to the southwest. Lakes Mills and Aldwell, to the north, are artificial impoundments created by the damming of the Elwha River. Numerous small subalpine and alpine lakes and ponds, created by glaciation

or landslides, dot the interior of the Park (Danner 1955:15).

Climate

Due to the moderating influence of the Pacific Ocean, the general climate of the Park is maritime, with cool summers, mild cloudy winters, moist air and somewhat restricted daily temperature ranges for the lower elevations. Naturally, at higher elevations temperatures can be much lower and seasonal extremes are more pronounced (Wessen 1978a:5).

Often during the late summer and early fall, "fog banks and low clouds form over the ocean and move inland at night. Tops of the clouds are generally below 3000 feet; thus higher elevations are sometimes clear while the lower valleys are filled with fog." (National Park Service 1982).

As Wessen noted, "precipitation is the most dramatic and influential aspect of climate in the region" (1978a:5). Variation in the amount of yearly precipitation in the Park is marked, due to the position of the Olympic Mountains relative to the north Pacific storm track.

That variation in precipitation ranges from 80 - 140 inches in the western and southern lowlands, in the form of rain, to an almost incredible 200 inches per year on the highest Olympic peaks (which falls as snow). The range of variation is further extended by the well-known "rain shadow" effect, which results in a yearly rainfall of as little as 20 inches at Sequim, Washington, some 7 miles northeast of the Park.

The rain shadow effect is caused by the mountains, which act as barriers and intercept moisture-laden winds prevailing from the southwest. The damp air blows in from the Pacific Ocean, rises over the mountains, "is cooled by the higher altitudes, and its moisture condenses in the form of rain or snow." (Danner 1955:18).

Most of the yearly precipitation occurs between October and April, in the form of rather continuous light to moderate rainfall (at elevations below 1000 feet) and as snow at elevations above 2500 feet (Wessen 1978a:5). The regional snowline (elevation above which there is year around snow) is 6000 feet, which is according to Danner (1955:15) the lowest snowline in the continental U.S.

Plant Life Zones

Warren (1982) and Wessen (1978a) have written summary descriptions of the life zones which exist in Olympic National Park; this review will use the terminology employed by Warren. As both of the above-mentioned authors have noted, local conditions such as slope and exposure, as well as the extensively forested terrain, tend to obscure the boundaries of life zones. Additionally, certain plant species are found in more than one zone. Despite those conditions, the life zone concept is useful for describing the dominant plant assemblages of the Park in broad terms. In order of elevation (from lowest to highest), the life zones, with dominant trees and major understory plants, are shown in Table 1.

In general terms, the distribution of life zones throughout the Park reflects an East-West division, with the Elwha River as an appropriate demarcation line. This east-west division is largely due to the topography and rain shadow effect.

In the eastern portion of the Park, temperate rain forests are virtually nonexistent because of the paucity of low elevation country. Alpine zones are also less common than in the central Olympics, which lie just to the west of the Elwha River. Montane and subalpine zones with extensive subalpine meadows predominate in the east, and the northeast portion of the Park is a further exception from the general vegetation trends, due to the rain shadow effect. There, the subalpine zone is above 4500 feet, and given the drier conditions, stands of Douglas-fir and lodgepole pine are found (Warren 1982).

West of the Elwha (exclusive of the Bailey Range and Mount Olympus) we see that subalpine zones are less in evidence, given the lower elevations, more moderate temperatures, and gentler slopes. There the Park encompasses long stretches of the drainages of the westward-flowing Calawah, Bogachiel, Hoh, Queets and Quinault Rivers. Along portions of those drainages and in the coastal strip of the Park one can observe the extremely dense vegetation of the Temperate Rain Forest, with its colonnaded, stilted trees and extensive mosses.

As Wessen noted (1978a:17), a majority (70%) of Olympic Peninsula plant species are found in the Temperate Rain Forest and lowland forest zones. In those areas there are localized plant associations which depart from the regional life zone overview (which is based upon climax species representing long-term equilibrium). For instance, plant communities with "definite temporal dimensions" are found along the rivers (Wessen

1978:20). Those temporal dimensions basically involve forest succession on stabilized river bars and terraces. Also of note are two localized plant associations found in specific environmental contexts within the Temperate Rain Forest and lowland forest zones (Wessen 1978a:21). Those environments are bogs and prairies, whose representative flora are:

Bog	Western red cedar, Sitka spruce, huckleberries, sedges and sphagnum
Prairies	Sitka spruce, bracken fern, common camas and lupines

Fauna

Animals, because of their mobility, are not as limited in distribution as plants and many species can be found, at different times of the year, in different plant life zones.

With some exceptions, the fauna found in Olympic are very similar to those animals common elsewhere in Western Washington. As with plants, the greatest variety of land animals and birds are found in or near the Temperate Rain Forest and Lowland Forest Zones.

Table 2 summarizes the more conspicuous faunal elements found in or near the Park, exclusive of insects, amphibians and reptiles (See Table 2). Included in this list are those animals known or believed to have been useful to prehistoric and historic aboriginal inhabitants. For this reason, migratory sea mammals and deep sea fish not found in the Park per se but in waters offshore have also been included. Because of their great diversity, invertebrates such as molluscs, crustaceans and echinoderms will not be specified, although they were of great economic importance. As with the plants listed in Table 1, common names will be used, as opposed to Linnean taxonomic designations.

Table 1. Life Zones of Olympic National Park
 (after Warren 1982 and Wessen 1978a)

<u>Life Zones</u>	<u>Dominant Trees</u>	<u>Major Understory Plants</u>
Temperate Rain Forest (0-1000', western coastal areas)	Sitka spruce, western hemlock, red alder (on recently stabilized river bars)	Salal, willows, salmonberry, currants, gooseberries, swordfern, licorice fern, bracken, oxalis, epiphytes, vine maple, evergreen huckleberry, maidenhair fern, deer fern.
Lowland Forest (0-2000', central Olympics)	Western hemlock, Western redcedar, Douglas-fir, red alder (on recently stabilized river bars)	Vine maple, thimbleberry, huckleberry, vanilla leaf, bunchberry, salmonberry, bitter cherry, Oregon grape, miner's lettuce, Western starflower, trillium, salal, wild ginger, dogwood.
Montane Forest (2000-3600', central Olympics)	Silver fir, western hemlock, Douglas-fir (eastern portion of Park)	Oxalis, queen's cup, deer fern, swordfern, epiphytes, vanilla leaf, bramble, twisted stalk, foam flower, wintergreen, huckleberry.
Subalpine Zone (3600-5000', central Olympics)	Mountain hemlock, yellow cedar, subalpine fir	Grass sedges, blue leaf huckleberry, avalanche lillies, red mountain heather, dwarf bramble, Douglasia, alpine laurel, wallflower, alpine aster, lupine, Sitka valerian, beargrass, partridge foot.
Alpine Zone (5000-8000', central Olympics)	- no trees -	Similar to subalpine

Table 2. Notable and Culturally Important Fauna of
Olympic National Park (after Warren 1982
and Wessen 1978a)

Land Mammals

- Herbivores: Olympic elk, blacktail deer.
- Rodents: Olympic marmot, Olympic chipmunk, Olympic pocket gopher, Olympic snow mole, Douglas squirrel, porcupine, beaver.
- Carnivores: Black bear, cougar, coyote, short-tailed weasel, river otter, mink, bobcat, marten.

Birds

Crows, ravens, gulls, Red-tail hawk, Bald eagle, Blue and Ruffled grouse, Valley quail, Blue heron, kingfisher, Pileated woodpecker, various migratory brants, geese and ducks, common loon.

Fish

- Marine fish: Halibut, black cod, ling cod, dogfish, herring, sea bass, flounder, smelt, eulachon.
- Anadromous: Sockeye, King, Silver, Chum and Humpback salmon, Steelhead trout.

Sea Mammals

- Cetaceans: Gray, Humpback, Finback, Blue, Sperm and Killer whales, porpoises.
- Pinnipeds: Northern fur, harbor and Elephant seals, Stellar and California sea lions.
- Other: Sea otter.

II. REVIEW OF PREVIOUS ARCHEOLOGICAL RESEARCH

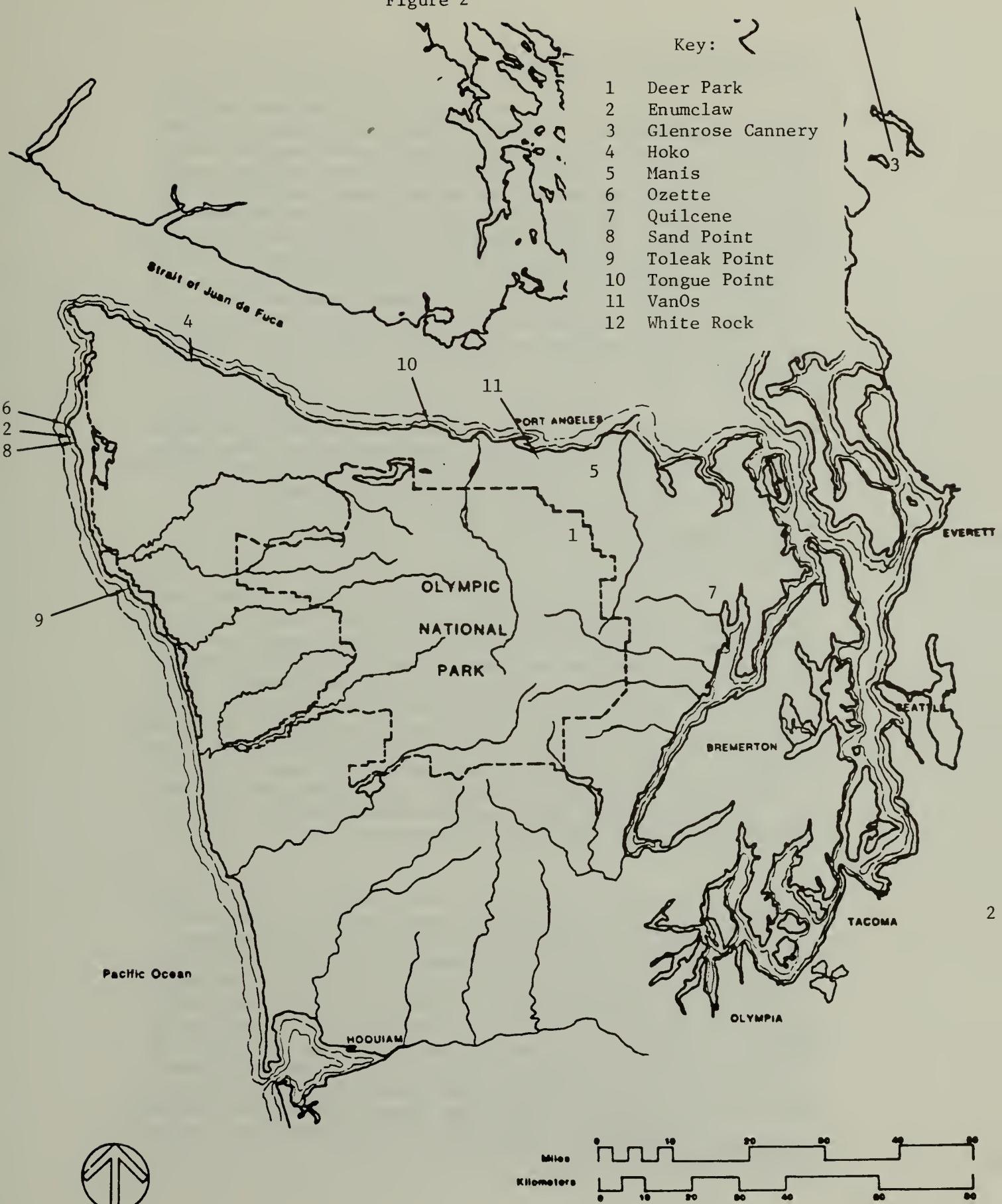
Introduction

Aside from the narrow coastal strip, the archeology of Olympic National Park is virtually unknown. Therefore, the prehistory of the Park, as it is presently understood, is rather speculative and has been derived from a broad regional data base. Figure 2 shows the approximate locations of sites referred to in this report.

Despite the relative lack of data from the Park per se, the general trends evident in the broad outline of prehistory are indeed exciting. Those trends reflect changing human adaptations to an environment which was highly varied physiographically, rich in food resources and which presented its own unique set of problems.

Before examining those prehistoric trends, it is necessary to review the archaeology which has been done in the Park, as well as important research from elsewhere on the Peninsula.

Figure 2



Archeological Sites Referenced in the Text

Archeology Along the Coast

The published and unpublished archeological literature reflects a research bias which has favored coastal sites. The very dense vegetation of much of the Peninsula makes archeological survey and site detection extremely difficult, except along the coast. There, access is somewhat better and erosional agents have made cultural remains highly visible. For the most part, those remains are refuse deposits consisting largely of molluscan shell fragments, sea mammal bones, charcoal, and fire-cracked rock, all in a distinctively dark soil matrix. Most work has been undertaken since World War II and has been oriented toward understanding the time-depth, distribution and technology of the well-known Northwest Coast ethnographic pattern (see Summary Ethnography, this report).

After the initial work of Albert Reagan (1917), which consisted of test excavations and survey in the LaPush area, there was a thirty year hiatus in archeological research in the area. In the late 1940's, Richard Daugherty, then of the University of Washington, surveyed the coast between Capes Flattery and Disappointment.

The coast was surveyed again by University of Washington students in the mid-1950's (Stallard and Denman 1955). That study, which was funded by the National Park Service, encompassed the coastal area between the Ozette and Queets Rivers and included inland portions along the major streams emptying into the ocean. Stallard and Denman performed site survey and subsurface testing, and also interviewed native informants regarding aboriginal site locations. They documented seventeen archeological sites, eight of which were in Olympic National Park. Besides the archeological sites, they listed and located on maps sixty-four aboriginal sites which their native informants knew of. Twenty-seven were reportedly on Park land.

Limited archeological excavations were conducted at two coastal shell midden sites in Olympic National park and subsequently reported by Newman (1959) and Guinn (1962, 1963), graduate students at Washington State University. The small artifact assemblage collected from each site reflected late prehistoric and historic occupations and could offer little in the way of additional insight into the area's prehistory. Interestingly, however, Newman reported the existence at Toleak Point (45JF9) of an older, non-shell cultural component with associated chipped stone tools (1959:90), while Guinn noted, for the first time on the northern Washington coast, the presence of an iron tool in an apparently prehistoric cultural layer at the White Rock Village site (45CA30) (1962:17).

In the mid-1960's, intensive multidisciplinary investigations began at the large Ozette Village archeological complex (45CA24), portions of which are in Olympic National Park at Cape Alava. At Ozette, investigations were undertaken by Washington State University under the overall direction of Richard D. Daugherty. Initial work was directed toward trenching of the site area in order to determine the extent, nature and geochronology of the cultural remains there (Daugherty and Fryxell 1967). However, the discovery in 1967 of late prehistoric house remains buried and well-preserved under massive mud slides shifted the focus of research at Ozette. The Makah Tribal Nation became actively involved. In 1970, Washington Archaeological Research Center (WARC) and WSU investigators, again under the direction of Daugherty, began careful hydraulic excavation of the intact household remains, which included such normally perishable items as wooden structural members and artifacts, basketry and cordage. Field work continued until 1981. Thus, the primary research focus shifted from examination of the total cultural sequence at the site to the excavation, conservation and technological analysis of materials from the late prehistoric houses.

The Ozette Archaeological Project has greatly enhanced our understanding of the late prehistoric and protohistoric periods on the coast. The water-saturated cultural components at Ozette have yielded large artifact inventories, of which over 80% are wooden or plant fiber specimens. This contrasts markedly with the rather meager artifact assemblages found in the "dry" late prehistoric shell middens elsewhere on the coast (Wessen 1980b, 1981). Several individual theses and dissertations have resulted from the Ozette Project (c.f. Croes 1977, 1980; Ellison 1977; Mauger 1978; Gleeson 1980a, 1980b), interim reports have been issued detailing fieldwork and special analytical studies, and there have been a number of popular books and articles dealing with the site (Kirk 1974, 1978). Unfortunately, the earlier cultural components at Ozette have never been adequately reported, nor has there been any synthesis attempted which would tie together the many lines of evidence unearthed there.

More recently, research teams under the direction of Dale Croes have excavated a site located near the mouth of the Hoko River on the Strait of Juan de Fuca north of the Park. Work there commenced in the late 1970's and is not yet completed. Like Ozette, the Hoko River site has yielded normally perishable artifacts well-preserved in a water-saturated component, as well as a more typical "dry" midden component and associated artifacts (Croes and Blinman 1980). However, the materials from Hoko are primarily discarded refuse from a seasonal fishing camp as opposed to intact household assemblages, and are about 2000 years older than the late prehistoric remains from Ozette. Additionally, a relatively substantial lithic assemblage has been unearthed at Hoko, including hafted microlithic knives (Flenniken

1980). The research at Hoko will continue to expand substantially our understanding of earlier coastal sites.

Other potentially important earlier coastal sites have been tested by Daugherty and Gary Wessen and dated, but have not yet been reported in any detail in the literature (Wessen 1980b; 1981; personal communication 1982). One of those sites is located near Sand Point, and is within the boundaries of the Park's coastal strip; another site is on the Strait of Juan de Fuca, within 5 miles of the Park's northern boundary.

Archeology in the Interior

With the exception of one high elevation lithic site near Deer Park in the northeastern corner of the Park (see Bergland 1982), no known prehistoric archeological sites have been reported for the interior portion of Olympic National Park. This dearth of information is the result of: 1) lack of accessibility, 2) dense vegetation and rugged terrain, (3) the widespread belief, evident in both popular works and early archaeological reports, that aboriginal inhabitants of the Peninsula did not make appreciable use of the mountainous uplands, 4) lack of interest, and 5) lack of funding.

Systematic study of the interior began in 1977, when Wessen conducted reconnaissance of major river valleys in the western portion of the Peninsula. The objectives of that survey were to locate and document the many reported aboriginal river "village" locations. Several of the locations examined were within present Park boundaries.

The reconnaissance team discovered isolated artifacts (a projectile point, grooved "net stones", a shaped hammerstone, and two cortex spall tools), plus fire-cracked rock and charcoal, but nothing in a context suggestive of a habitation site. Wessen discussed the dynamic nature of the streams, the highly perishable late-prehistoric/early historic artifact inventory, limited accessibility and dense vegetation as probable reasons for the generally negative survey results (Wessen 1978).

Other cultural resource management efforts on the Peninsula have been undertaken recently, especially on the Olympic National Forest (Righter 1978; Barbara Hollenbeck, personal communication 1982). Those surveys have been largely unproductive in terms of locating prehistoric interior sites (Wapora 1980; Geo-Recon 1982).

Two important near-coastal sites have been investigated on the northeastern Peninsula. While not in the Park, their proximity to it warrants discussion here. An early stone tool site was excavated in 1971 by David Munsell, then Washington State Highway archeologist (Kirk 1978). That site, located east of the Park near Quilcene at the mouth of Hood Canal, yielded a lithics assemblage similar to what is known as the "Olcott Complex". Although no absolute dates were obtained, Munsell places the Quilcene site at 6000-8000 years before present (B.P.), based on comparisons with the Olcott "type-site" on the Stillaguamish River and similar dated assemblages in eastern Washington (Munsell, personal communication 1982).

The oldest known archeological site on the Peninsula is currently being investigated. That site is, of course, the Manis Mastodon Site south of Sequim, Washington. There, fossil bones and tusks were accidentally unearthed in 1977 and brought to the attention of Richard Daugherty, Carl Gustafson and Delbert Gilbow, all of WSU. Hydraulic excavation of the fragile remains of the site has revealed several cultural layers ranging in age from 12,000 to 6500 B.P. The oldest bone-bearing levels contain the remains of mastodon, bison and caribou, plus a limited inventory of worked bone. More recent levels at the site contain worked wood, chipped stone projectile points, cobble spall tools and more worked bone.

The Manis site has contributed greatly to an understanding of the area's cultural time depth and paleoclimate. Work under the direction of Gustafson continues and should prove productive.

Discussion

It should be readily apparent from this section that the archeology of Olympic National Park has been hampered by dense vegetation, rugged topography, limited access and the lack of interest and research funds. Also, the slant or bias in most research has favored investigation of relatively recent coastal sites.

Other than the Manis and Quilcene sites, no interior or non-coastal sites have been investigated in any detail. The recently discovered Deer Park site represents the only known prehistoric archeological site recorded for the large interior portion of the Park.

Given those large gaps in the archeological record, both in time and space, the prehistory to follow must draw upon wider regional sources. The following section presents a general cultural sequence.

III. PREHISTORY OF OLYMPIC NATIONAL PARK

Introduction

The prehistory to follow is based upon: 1) direct evidence of prehistoric human activity in and around the Park, disclosed by the archeological researches discussed in the preceding section; 2) general cultural sequences derived from the Fraser River area (Borden 1970, 1975; Matson 1976) and Puget Sound (Kidd 1966), and; 3) various subareal and generalized syntheses (Wessen 1980; Borden 1979; MacNeish 1976).

Because of the relative paucity of direct evidence, no attempt can or will be made to create a named phase sequence. Instead, the prehistory will be discussed in terms of general periods, each delimited by an inclusive, sometimes arbitrary, time range. Those general periods will be further described in terms of various cultural traits, including tool kits, technology, presumed economic orientation and, whenever possible, settlement patterns. Environmental and other factors which may have been responsible for population movement and/or culture change will also be discussed, whenever appropriate, for each general time period of prehistory.

Finally, all of the general prehistoric periods will be charted, for ease of reference, in Table 3 (Proposed Cultural Chronology, Northern Olympic Peninsula). While not truly prehistoric, the early historic period of aboriginal culture will be included in this cultural sequence chart, since it represents a recent manifestation of a cultural continuum begun in ancient times. A summary ethnography has been prepared which deals more fully with

Table 3: Proposed Cultural Chronology—Northern Olympic Peninsula

Years Before Present(BP)	Period	Diagnostic artifacts; technological trends	Probable economic orientation	Topographic associations with known sites	Exemplary sites
200-100BP	Historic	Euro-American artifacts (metal tool frags.,nails, glass, ceramics, trade beads) found with artifacts of the preceding period.	Hunting of fur-bearing species for trade to whites, with continued subsistence orientation from preceding period.	Present-day beaches, sheltered estuaries; many reported but unverified riverine sites; bark-stripped cedar trees & canoe hulls in cedar swamps.	Ozette Village(45CA24)
1000-200 BP	Prehistoric Northwest Coast Pattern	Whalebone clubs and wedges; bone unipoints and bipoints; ground slate and shell projectile points & knives; extensive woodworking; metal present but rare.	Anadromous and deep-sea fisheries; shellfish gathering; sea and land mammal hunting; bird hunting; extensive gathering of camas, fern roots,berries.	As above. Most ocean beach sites are eroded shell middens.	Ozette Village;Toleak Point(45JF9); White Rock Village(45CA30)
20					
3000-1000 BP	Early Maritime	Large and medium-sized ground slate points; minimally ground adzes; barbed wooden and bone projectile points;hafted microlithic knives;small chipped stone points(?)	Anadromous and deep-sea fisheries; shellfish gathering; relative importance of land and sea mammal and bird hunting unknown.	Ocean sites are on bluffs or raised sea terraces; river bars at mouths of rivers.	Hoko River (45CA113); Sand Point (45CA201); Tongue Point(45CAL6); Deer Park (?)
6000-3000 BP	Middle Prehistoric	Continued use of chipped stone,as in preceding period,with more diversity in projectile points;large ground slate points(?) ; extensive bone-working technology probable.	Unknown for Peninsula; Fraser River sites show Land mammal and seal hunting and shellfish gathering of nearly equal importance;increased evidence for fishing.	Most coastal sites probably lost due to raised sea level.	VanOs Site(45CA253), Deer Park(in Olympic National Park) may date to this period; Glenrose Cannery Site in B.C.(St.Mungo component)
12000(?) - 6000 BP	Early Prehistoric	Extensive use of basalt chipped stone tools(leaf shaped bifaces,choppers, scrapers,burns;pecked spheroids;edge-ground cobbles;simple bone tool inventory	Hunting and gathering "generalists" with probable emphasis on land mammals; importance of fish and shellfish unknown.	Along lowland fringes of Peninsula(river terraces, knolls above ponds);most coastal sites probably inundated.	Manis Mastodon Site (45CA218);Enumclaw Site Quilcene Site(45JE14); VanOs Site(?)

native culture during the period of initial white contact (see this report).

Early Prehistoric: ?12,000-6000 B.P.

The earliest human occupation of the Peninsula was probably by small, highly mobile bands of hunters and gatherers. They probably migrated into the area from somewhere to the south of the Peninsula, following continental and alpine glacial recession at some time prior to 12,000 years before present (B.P.).

That date comes from the Manis site (45CA218), south of Sequim, where evidence has been unearthed which indicates the systematic butchering of at least one, and possibly two, elephants of a now-extinct species (Gustafson, Gilbow and Daugherty 1979; Gustafson and Gilbow 1979; Gustafson 1980; Gilbow 1981; Gustafson, personal communication 1982). Discarded butchering tools were rare, with only one clearly recognizable stone tool, a flaked cobble spall, found in association with the elephant bones (Gustafson et al 1979:1963). Significantly, the animal was a mastodon (*Mammut americanum*). The Manis site represents the first known association of humans and mastodon in North America. In South America, undated mastodon remains have been found associated with a stone projectile point and flake tool (Bryan et al 1978:1275). Also found in the mastodon bone-bearing sediments at the Manis site were the remains of bison, caribou and muskrat, although only the bison bones showed evidence of human butchering.

One of the mastodon ribs from the Manis site has generated much controversy, because imbedded near the head of the rib is a triangular-shaped bone (or possibly antler) object. That object caused a clean, non-fatal wound to the animal which healed over a period of perhaps 3-4 months, indicating that the animal was alive "at the time the rib was penetrated by this foreign bone" (Gustafson et al 1979:158). Possibly, the pointed object is a bone or antler projectile point fragment; a similar artifact "cut and ground to a triangular point on one end and chopped to a crude point on the opposite end" (Gustafson and Gilbow 1979:4) was also found in the sediments which contained the mastodon and bison bones.

Other pieces of worked bone and tusk have been found in the early sediments at the Manis site. These pieces have been variously chipped and ground, but their shapes and lack of association with other cultural or faunal remains suggest no clear function.

Probably the early remains at the Manis site represent butchering and preliminary bone-working activities. The site was a ponded area, undoubtedly fed by melt water from stagnating, remnant blocks of glacial ice (Gustafson, personal communication, 1982); it evidently attracted both game animals, who watered and browsed there, and humans as the predators or scavengers of those large herbivores.

No habitation site has been clearly associated with the earliest butchering activities at Manis, although more recent soil strata there have yielded evidence of fire hearths dating between 7800 and 6300 B.P. Because the early tool assemblage at Manis is so limited, it is difficult at this time to characterize the technology of those early people.

An as-yet unreported site approximately 70 airmiles southeast of the Park on the Enumclaw Plateau near Auburn, Washington, may eventually prove more illustrative of that early technology. There, Hedlund has tested a site where he found a lithic assemblage resting on a glacial recession till surface. The till surface has been tentatively dated geologically to about 13,000 B.P., possibly placing the site close in time to the Manis site. The assemblage consists of crude choppers, a few gravers, abrading stones and pecked spheroids. The gravers and abraders suggest bone-working (Gerald Hedlund, personal communication, 1982).

The possible relationship of the Enumclaw assemblage to the obvious bone-working orientation at Manis is intriguing. It seems reasonable to suggest that the earliest cultural pattern on the Olympic Peninsula possessed, in addition to simple stone tools, a simple bone tool inventory which, being highly perishable, doesn't often survive in the archeological record of open sites except at water-saturated sites such as Manis. Continued excavation and analysis of sites like Manis and Enumclaw is necessary in order to achieve a fuller understanding of the earliest cultural pattern(s).

Movement into the Peninsula by humans may have followed that of large Pleistocene herbivores as the ice retreated and supporting vegetation re-established itself. It has been argued that human populations, albeit small ones, lived south of the great continental ice sheets during the late Pleistocene (Borden 1975, 1979; MacNeish 1976).

As the climate improved following glacial recession and the area was revegetated, there would have existed the perhaps irresistible opportunity for "adaptive radiation" into the Peninsula for any number of organisms, including humans. It has

been suggested that migration routes followed by those early groups in to the Sequim area may have been along the present-day Elwha and Quinault Rivers, or, perhaps, the Dungeness and Grey Wolf Rivers (Delbert Gilbow 1981, personal communication, 1982).

At the present time, not a great deal is known about the human population(s) that essentially spent the latter years of the Pleistocene isolated in the New World. The massive continental ice sheets blocked both travel and the flow of ideas to and from Eurasia. Reliable absolute dates for campsites and hearths are scarce, and the simple stone tool assemblages left behind are very generalized and usually small in numbers. Those tool kits included such forms as stone choppers and cleavers, unifacial flake tools, burins and rudimentary bone tool forms. According to MacNeish, "peoples of this stage could conceivably have come across on a land bridge from Asia or developed in northern North America some $40,000 \pm 10,000$ years ago" (1976:318).

Other researchers have discussed the implied early arrival of those ancestral groups in the New World. Bryan, in noting the diversity of stone tool kits in South America by 13,000-11,000 B.P., argued that "considerable time had already elapsed since an antecedent population had entered . . with a basic tool kit which allowed innovation and differential adaptation to different environmental regions" (1973:253). Warren reviewed the "San Dieguito" stone tool assemblages in California. He concluded that the San Dieguito represented an older, more generalized cultural pattern which was "derived from the North and represents an older . . cultural stratum that is present throughout a large part of western North America" (1967:182). Borden referred to northwestern manifestations of that ancient group as the "Proto-western". Borden hypothesized that terminal Pleistocene groups in the Pacific Northwest had evolved in isolation from Eurasian influences, and were descended from "an ancestral parent culture which, at the time of its arrival in the Pacific Northwest, may have been in a transition stage from Middle Paleolithic to Upper Paleolithic" (1979:964).

Certainly the early remains from the Manis site suggest a small band of technologically unsophisticated people. If they did possess more refined tools, they evidently valued those tools and did not or could not afford to leave them behind. Since there is no direct evidence that the Manis mastodon was actually killed by humans, the group who butchered the remains may have been as much collectors or scavengers of game as hunters.

Evidence at the Manis site indicates that the group who butchered the mastodon at 12,000 B.P. may have remained on the Peninsula. Or, alternatively, they may have been only the first of several post-Pleistocene groups who made their way into the area.

Subsequent Early Prehistoric Period hunters and gatherers have left their tool remains at a number of locations near Sequim, Port Angeles, Quilcene and elsewhere on the Peninsula. Similar assemblages observed at other sites in the Northwest have been variously referred to as the "Olcott Complex", the "Old Cordilleran Pattern" or the "Cascade Phase" (Kidd 1966; Warren 1968; Bense 1972; Matson 1976; Munsell, personal communication, 1982). For the purposes of this discussion, such sites on the Olympic Peninsula will be termed "Olcott Pattern" sites.

The hallmarks of those assemblages are chipped stone, leaf-shaped bifaces, usually made from basalt. The bifaces vary widely in overall length and thickness. Smaller specimens were sometimes serrated, and probably functioned as projectile points; larger, more cumbersome examples may have been knives or were possibly projectile point "preforms". Olcott points are generally bipointed, although stemmed and/or weakly-shouldered forms also occur. Projectile Points and other chipped stone tools are shown in Figures 3 and 4.

The lithics inventories of Olcott Pattern sites also may include cobble choppers, end- and side-scrappers, graving tools and abrading stones (the latter two indicating bone tool manufacture). Occasionally, "edge-ground" (sharpened) cobbles are found, as at the Quilcene site (45JE14).

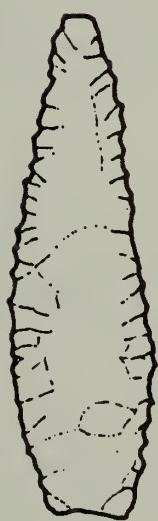
Olcott Pattern tool assemblages found both on the Peninsula and in the Puget Sound area are very similar to those found at sites on the Columbia Plateau and Snake River which have C¹⁴ dates ranging from about 8000-5000 B.P. (Butler 1961; Bense 1972). Since Olcott sites or artifacts have often been surface finds or shallow sites with no datable organic materials, secure dating has been a problem.

An important stratified site on the Fraser Delta in British Columbia, known as the Glenrose Cannery Site, has an "Old Cordilleran" component, which Matson dates between 8150 and 5700 B.P. (based on C¹⁴ dating). This is in close accord with dates for the Cascade Phase, although Matson felt that the beginning date of 8150 B.P. was "surely not the first occupation of the area, but . . . represented a period some thousands of years after the retreat of the ice . ." (1976:297).

Other researchers have also suggested an early beginning date for Olcott Pattern and related sites, ranging from 13,000 to 11,000 B.P. (Butler, 1961; Borden 1975:54). Their estimations are generally intuitive, or based on rough indicators such as the degree of patination on stone tools or approximate geological

Figure 3

Early Prehistoric Projectile Points



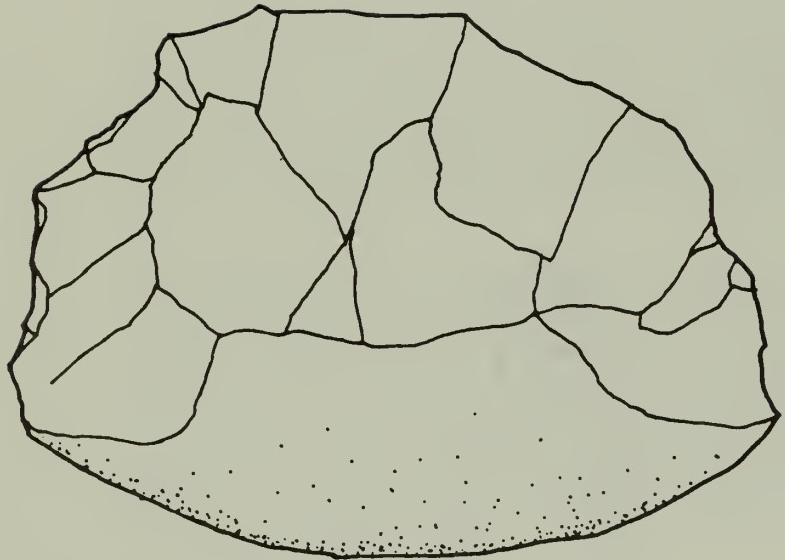
Leaf-shaped
point



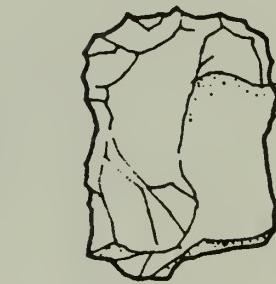
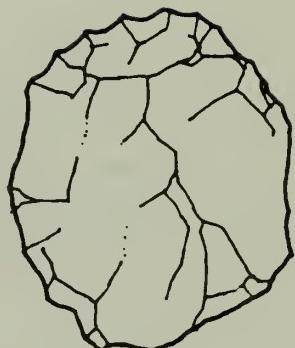
Stemmed
point

(after Kirk 1978:82)

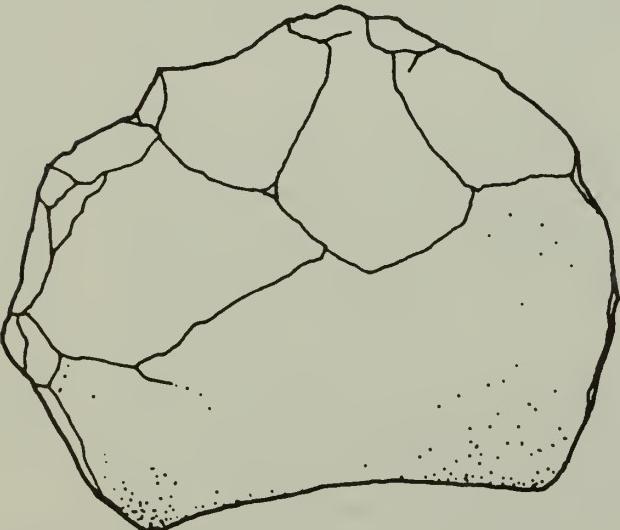
Figure 4
Miscellaneous Chipped Stone Tools



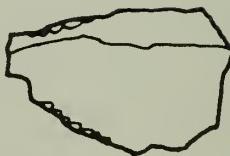
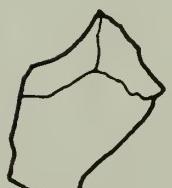
CHOPPER



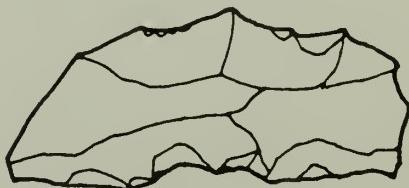
SCRAPERS (after
Kirk 1978:82,83)



SPALL TOOL



GRAVERS



FLAKE TOOL

0 1 CM

age of sediments or terraces associated with Olcott remains. The earliest absolute date for Olcott-like materials is 9000+150 B.P., which marks the beginning of the Miliken Phase at a site of the same name in the lower Fraser Canyon (Borden 1975:62).

Establishment of a terminal date of 6000 B.P. for the Olcott Pattern on the Olympic Peninsula is tentative and conjectural. The discovery of an Olcott projectile point just above a layer of Mt. Mazama ash at the Manis site gives an approximate termination date of 6000 B.P., since the tool was left sometime after the Mazama ash was deposited at about 6700 B.P. (Gustafson 1980:29). Future research could well place the terminal date 1000 or more years closer to the present for the Peninsula.

Olcott artifacts have been observed at numbers of locations on the Peninsula, although the Quilcene and Manis sites are thus far the only ones thoroughly investigated. Gustafson has noted the presence of at least three Olcott sites in the Sequim area (1978:1).

The Van Os site in Port Angeles (45CA253) may have been a major late-Olcott Pattern campsite. The artifact assemblage suggests a number of different activities, such as cooking with heated stones, flintknapping and bone working. There are at least 15 leaf-shaped basalt projectile points, ranging in length from 5-7 centimeters, which exhibit excellent craftsmanship. Numerous large broken bifaces, basalt chipping debris, cores and hammerstones indicate a range of flintknapping activities. Also discovered at the Van Os site were basalt cobble choppers, unifacial scrapers, "utilized" flakes, cobble spall tools, flake-gravers, pecked spheroids and small sandstone abrading slabs (Bergland, on-site inspection, 1982).

Interestingly, a stemmed ground-slate projectile point was found at this site, which is not at all characteristic of Olcott assemblages, although stone grinding in the form of edge-ground cobbles has been noted (Kirk 1978:82; Bense 1972; Warren 1968). Because the Van Os site is in a disturbed context, and the provenience of artifacts excavated there wasn't noted, we may never know whether or not the site was stratified and included more recent components, which could account for the ground slate. An alternate explanation would be that the site assemblage is from a transitional period.

Olcott-like projectile points have been observed or collected at several disparate locations on the Peninsula, including the Quinault River below Lake Quinault (Wessen 1978a:61), Ahlstrom's Prairie, near Lake Ozette (Richard Daugherty, personal communication, 1982), and Tongue Point, on the Strait of Juan de

Fuca (Fred Pennoyer, personal communication, 1982).

What then were the life-ways and economic orientations of those far-flung early prehistoric people? To a certain degree, the bearers of the Olcott Pattern were generalists, as their little known antecedents undoubtedly were (c.f. Bedwell 1973:157). However, where direct evidence of subsistence in the form of faunal remains is found, as is the case for the Manis and Glenrose Cannery sites, the orientation is toward the hunting of land mammals.

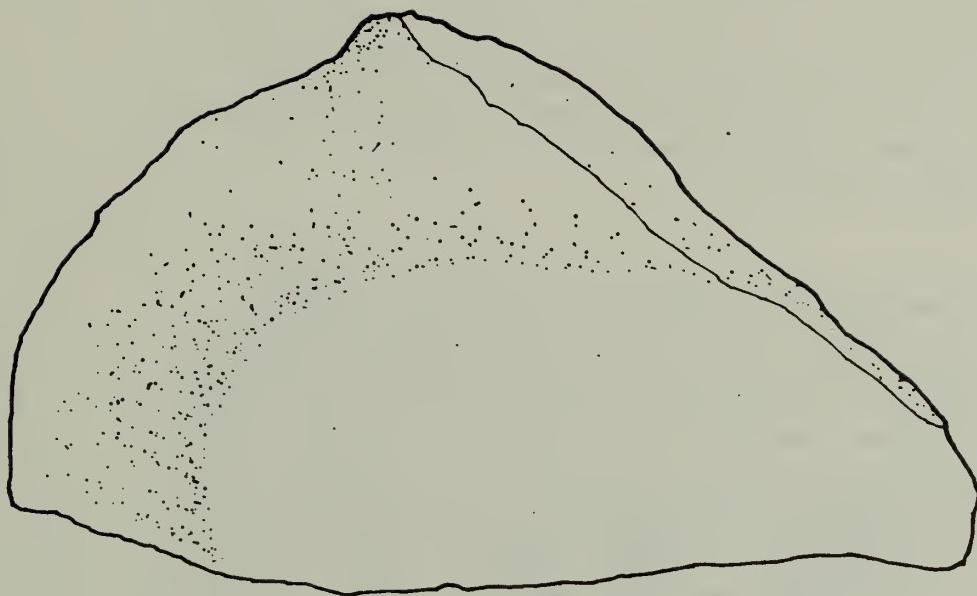
At the Glenrose site, Matson found that deer and elk were the most important faunal resource, paralleling the situation noted by Bense for the Cascade Phase along the lower Snake River (Matson 1976:297; Bense 1972:39). Shellfish (bay mussels), seals and fish (salmon, sturgeon and eulachon) were also taken at Glenrose, but only seals approached the importance of deer or elk in the diet. Elsewhere along the Fraser River, Borden notes the discovery of wild cherry pits at the Miliken site in the Fraser Canyon (Miliken Phase, 9000-8150 B.P.). Besides constituting direct subsistence information, the pits indicate that the site was occupied during August and September, which Borden notes is coincident with the main run of spring and sockeye salmon. From this seasonality, Borden infers at least the possibility of salmon fishing at an early date (Borden 1975:63).

Data from the Fraser River sites indicate that people there were orienting their settlement systems to the seasonal availability of food resources as early as 8000 B.P. Studies of shellfish growth rings from the Glenrose "Old Cordilleran" component suggest a spring-summer occupation at that site (Matson 1976:295). Furthermore, the same resource exploitation pattern, both in terms of seasonality and species utilized, is manifest throughout the last thousand years of the "Old Cordilleran" component (bone was not well-preserved in the earliest cultural strata). Matson concludes that "the subsistence information shows a wide range of utilized resources, but (with) an emphasis on mammals and especially land mammals, as one would expect from an early and wide-spread culture" (1976:197).

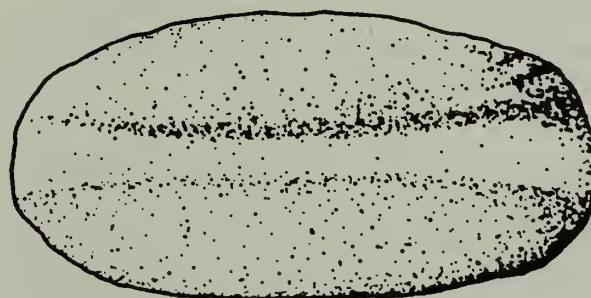
As befitting hunters and gatherers, the Olcott Pattern assemblages at the Quilcene and Van Os sites include numerous scrapers, which are usually interpreted as evidence of hide-working. Certain abrading stones at Quilcene have been interpreted as bone awl or needle sharpeners, suggestive of the manufacture of skin clothing or accoutrements and basketry (see Figure 5b). Gravers, burins and abrading slabs indicate bone tool manufacture, although bone tools haven't been preserved at either site.

Figure 5

ABRADERS



a



0 1 CM

b

a : flat abrading slab

b : grooved abrader (Early Prehistoric)
(after Kirk 1978:83)

Bone has been preserved at the Manis site. In early layers (above the glacial till surface) Gustafson has excavated bison bones which apparently represent a pattern of systematic butchering, marrow extraction and then further processing of certain resultant bone fragments. Furthermore, he finds the pattern comparable to that exhibited at eastern Washington kill/butchering sites of similar age (personal communication, 1982). Finished bone tools were undoubtedly manufactured elsewhere, perhaps at basecamps similar to the sites at Quilcene and Glenrose Cannery, where a more complete range of tool fabrication was taking place.

At Glenrose Cannery, Matson notes in the "Old Cordilleran" component the presence of a "splinter and groove" bone technology, while antler wedges imply woodworking of some sort (1976:298). Those kinds of manufacturing activities also are evident in levels of similar age at The Dalles on the Columbia River and in eastern Washington "Old Cordilleran Pattern" sites (Warren 1968). Thus, it can be seen that early populations on the Olympic Peninsula and elsewhere in the greater Northwest were adherents to a cultural/technological pattern of remarkable stability and uniformity. They made extensive use of basalt, a most ubiquitous substance, as a chipped stone medium. The ready availability of basalt throughout much of the Pacific Northwest may have enhanced expansion into, and exploitation of, a diversity of environments.

Diverse environments yielded different food resources, and we see in the Early Prehistoric Period the possible beginnings of a "seasonal round", which came to include, albeit on a limited basis, the taking of anadromous fish and gathering of salt-water mollusks to supplement a diet of deer and elk meat.

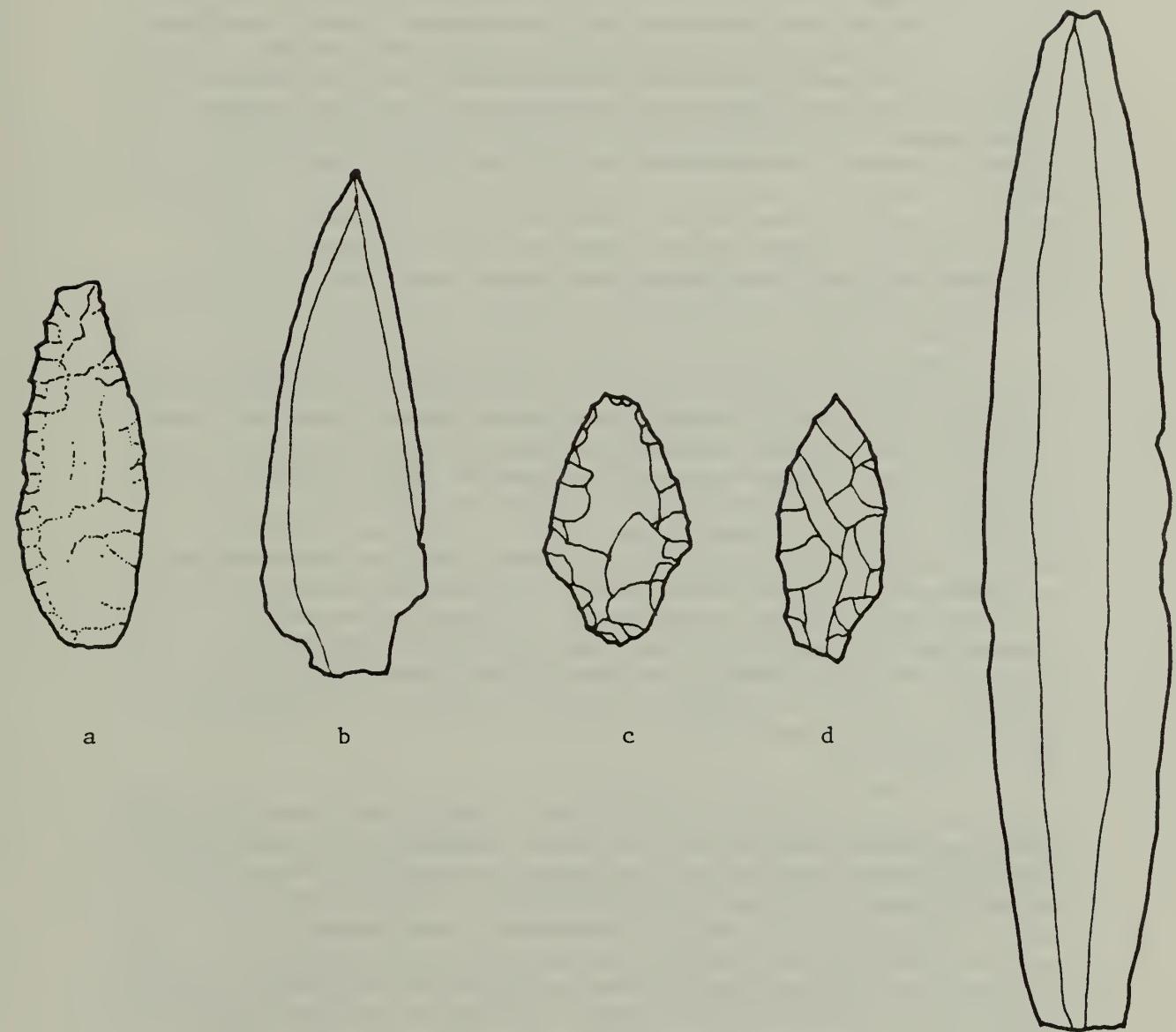
Movement onto the Peninsula began prior to 12,000 B.P. Groups which possessed a limited but generalized stone and bone tool kit entered the area, motivated by the opportunity to exploit an unpopulated region. Perhaps changing climatic conditions to the south were in part responsible. As the Northern Great Basin and Columbia Plateau became warmer and drier, populations began to concentrate around lakes and rivers (Bedwell 1973:169-170). That concentration may have created population pressures which further impelled marginal groups to drift northwest to recently deglaciated areas like the Puget lowland, Olympic Peninsula and Fraser River (Borden 1979:964-965).

Nothing is known about social organization among those early people, although most researchers assume that they grouped themselves as loosely organized bands, which wouldn't have exceeded 25-30 individuals and may have been even smaller, composed of one or two nuclear families. Likewise, it is not

Figure 6

Projectile Points -

Middle Prehistoric and Early Maritime Periods



a : leaf-shaped (chipped basalt)

e

b : stemmed (ground slate)

c : stemmed (chipped basalt)

d : shouldered (chipped basalt)

e : leaf-shaped, faceted (ground slate)
(after Mitchell 1971:111, Fig. 46a)

subsistence and artifacts indicate that slow, continuous development was taking place" (1976:305).

Kidd, in surveying Puget Sound archaeology, has also discussed the continuity of basalt chipped stone tool forms from earlier times into what he terms the "Archaic" (5000-3000 B.P.). He also mentions the initial appearance of large ground slate projectile points at certain Whidbey Island sites during that period (1966:2). In reviewing the settlement pattern of the "Archaic" cultures on Whidbey Island and the San Juans, Kidd states that "known units are found in shell-free strata underlying shell mounds, in shoreline locations, or in sites on natural prairie uplands" (1966:2). While that statement implies that shellfish weren't important subsistence resources, it nonetheless points out that people of the Middle Prehistoric were expanding their settlement system. That expansion suggests, at least indirectly, an ever-widening resource base.

It may be that the technological and subsistence shifts noted for the Middle Prehistoric in the Fraser River country occurred later in time on the Olympic Peninsula. Geographical isolation of large portions of the Peninsula has been an important theme noted in botanical, faunal and historical studies (Pike 1981; Gail E. H. Evans, personal communication, 1982). Also, major changes in relative sea level since the Pleistocene, both above and below the present level, have complicated the picture. These changes were caused by isostatic rebound of the land surface and a gradual world-wide rise in sea level. Between 9000-5000 B.P. (and possibly continuing up to more recent times) there was evidently a period of lowered sea level (Thompson 1978:55). Coastal sites on the Peninsula occupied during that time would now be submerged.

Areas such as the western and southern river valleys may not have been occupied until late in the Middle Prehistoric, or perhaps were populated by small isolated groups of hunters and gatherers whose technology had remained essentially unchanged since the Early Prehistoric. If Middle Prehistoric land mammal hunter/gatherer sites do exist in the western and southern valleys, they are probably hidden in the dense vegetation of the lowland and temperate rain forests. Wessen, in reviewing the paleoclimatic reconstructions of the area, has suggested that forests "may have been fairly open communities from ca. 8000-3000 B.P. It is, apparently, the cooler and moister conditions of the last 3000 years that gave rise to the dense closed forests" (Wessen 1978:27). He goes on to note that habitation sites would likely have been "open sites lying within the now closed forest" (1978a:50).

The northeastern portion of the Peninsula contains the only sites which might be assignable (at this time) to the Middle

Prehistoric. It has already been noted that the Van Os site in Port Angeles may be of that period.

Based on comparisons with similar artifacts from the St. Mungo Phase (4300-3300 B.P.) at Glenrose Cannery, the Deer Park lithic site in Olympic National Park may date to the Middle Prehistoric. At Glenrose Cannery, contracting stem and shouldered basalt projectile points have been found in association with cobble choppers, gravers, and abrading slab, utilized flakes and basalt flint knapping debitage and debris. The rather small projectile point size (3-4 cm long) and lack of appreciable patination or artifacts suggests an age of roughly 4000-2000 B.P. (Matson 1976; Kidd 1966).

"Olcott"-like leaf-shaped and stemmed basalt projectile points, plus a large ground slate point fragment and unilaterally barbed bone harpoon fragments were collected from a site near Crescent Beach, just west of Port Angeles, in the 1940's (Fred Pennoyer, personal communication, 1982). Interestingly, informal testing of that site by WSU has produced two C¹⁴ dates of about 2200 and 2600 B.P. (G. Wessen, personal communication, 1982). This site, like the Van Os site, may contain multiple components.

Although detailed archaeological investigations of Middle Prehistoric sites are lacking, it is nonetheless suggested that by about 3000 B.P. the adaptive shifts noted in the Fraser Canyon and Delta were probably in progress, at least along the southern shores of the Strait of Juan de Fuca and northeastern portion of the Peninsula.

Those adaptive shifts and new technological processes were no doubt the outcome of an array of environmental and cultural factors. Basing his argument on fisheries and paleoenvironmental data, Fladmark has maintained that post-Pleistocene stabilization of the land/sea interface at about 5000 B.P. made possible the large and generally predictable runs of anadromous fish up the major spawning streams of the Northwest Coast (1975). Surely such runs of fish weren't ignored, and as Matson has noted for the Fraser, salmon fishing first became important as a subsistence practice in the St. Mungo Phase (4300-5300 B.P.). On the other hand, it may be that salmon bones simply weren't preserved in earlier levels at that site.

Wessen has discussed the importance of the "closed forest" both in terms of its impact on the development of the Northwest Coast ethnographic pattern and its hindrance of archeological survey. He suggests that Western red cedar may have been rare or absent prior to 3000-4000 B.P. (1979:51). Similarly, Barnosky maintains that the advent of red cedar in the Puget lowland was not until

5500 B.P. (1981:221). Those dates are reasonably consonant with the developed woodworking indicated in the St. Mungo Phase at Glenrose.

It can be assumed that water transport, probably in the form of cedar dugout canoes, was well established along the Northwest Coast by the end of the Middle Prehistoric or even earlier, as a number of researchers have maintained (Matson 1976; R. Carlson 1979:220). Water transport capabilities would have greatly enhanced the inter-cultural exchange of ideas and technology, as well as opening up river valleys for settlement and allowing exploitation of offshore fisheries and sea mammal hunting.

Some of the new technological advances, such as stone grinding, highly elaborated bone-working and water transport may have been the result of the infusion of ideas from the far north, as Borden has suggested (1975). Those new advances were readily adopted by populations which had been undergoing long *in situ* development and had expanded their dietary base to include fish and molluscs.

Those interconnected cultural and environmental factors culminated in the Prehistoric Northwest Coast Pattern. Its manifestation on the lands now occupied by Olympic National Park will be the subject of the section to follow.

Late Prehistoric: 3000-1000 B.P.; 1000-200 B.P.

Virtually all of the controlled archeological work undertaken in Olympic National Park has been oriented toward the study of late prehistoric culture. Thus, it is the only period for which discussion can move beyond mere speculation and conjecture, although as mentioned previously in the archaeology review, study has been heavily biased toward coastal sites.

As Wessen so lucidly noted, "The archaeological record of the ocean coast of Washington is a limited and biased sample with occasionally impressive detail within a generally impoverished context" (1980b:4). Because of that "impressive detail", and despite the noteworthy research bias, the general trends in the area's culture history for the period can be highlighted with confidence. What is reflected in the data is the long continuity and great stability of a cultural pattern, the Northwest Coast Pattern (see Summary Ethnography, this volume).

Certain aspects of the material culture allow the subdivision of the late Prehistoric Period into two portions, which will now be

discussed in turn. Figures 7 through 10 illustrate late prehistoric artifact types.

Early Maritime: 3000-1000 B.P.

Three thousand years before present is an arbitrary initial date for this period, and reflects a near-total lack of specific information about the preceding development of the Middle Prehistoric period on the Peninsula. Additionally, it should be noted that, to date, almost all information about the Early Maritime Period relates to developments on the northwestern Peninsula.

One thousand years before present is a convenient terminal date which is somewhat less arbitrary. It is based on two indices: 1) after 1000 B.P. the use of chipped stone tools at coastal sites is virtually nonexistent; 2) the first direct evidence of cedar plank houses, so characteristic of the Northwest Coast ethnographic pattern, is seen shortly after that time. Thus, the Early Maritime as delimited here reflects a time when the ancient chipped stone technology was waning and before we have positive proof that residents of the Peninsula were living in more-or-less permanent houses.

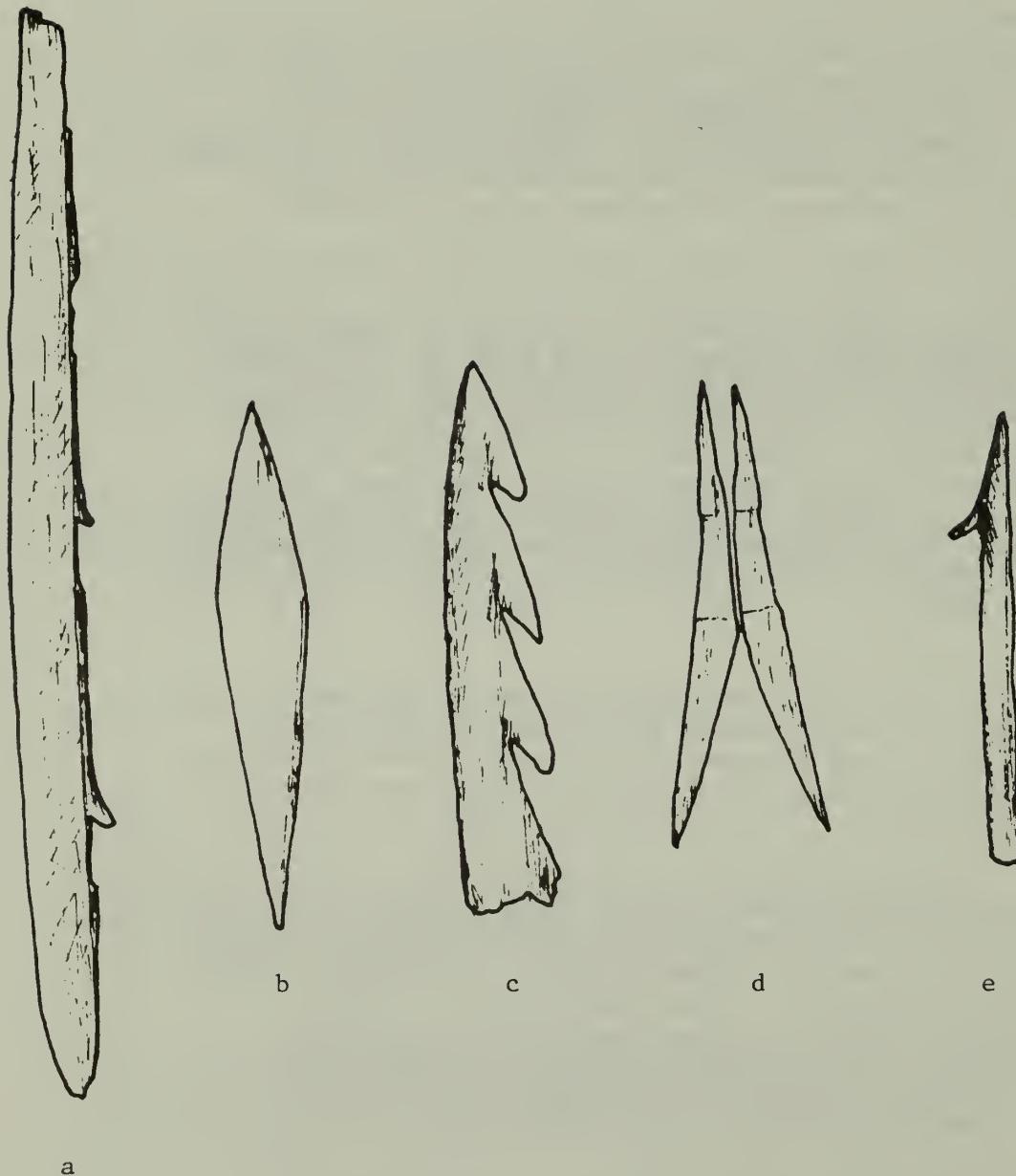
From the Hoko Site, with a well-dated occupation between 2200-2700 B.P., an array of well-preserved wooden, fiber and lithic artifacts, plus abundant faunal remains, attest to highly developed offshore and riverine fisheries (Croes and Blinman 1980).

Fishnet fragments and three different forms of deep-sea bent wood and composite fishhooks were found at Hoko, as were the remains of halibut, sole, Pacific cod and rockfish. These data indicate spring/summer occupation. Salmon remains plus a weighted, split-spruce net fragment, a possible fish weir lattice and wooden projectile points suggest occupation during the fall salmon run. Limited migratory bird remains also indicate spring or fall occupation (Croes and Blinman 1980:319).

Sea mammal remains include those of harbor and fur seals, porpoise, dolphin and grey whale. Bone or antler toggling harpoon "valves", which are traditionally thought to be basic sea mammal hunting gear, were not found, although the barbed wooden projectile points mentioned above may have been used for all except whale hunting. Whale remains from Hoko and the Sand Point site (south of Ozette along the coast) are unaccompanied by appropriate hunting gear, indicating that whales may have been

Figure 7

Projectile Points - Late Prehistoric



a, c : unilaterally barbed bone points
(multiple barbs)

b : bone inset for composite harpoon

d : antler "valves" for composite harpoon

e : unilaterally barbed bone point
(single barb) (after Mitchell 1971:170,
Fig. 92b)

Figure 8 Miscellaneous Bone Artifacts

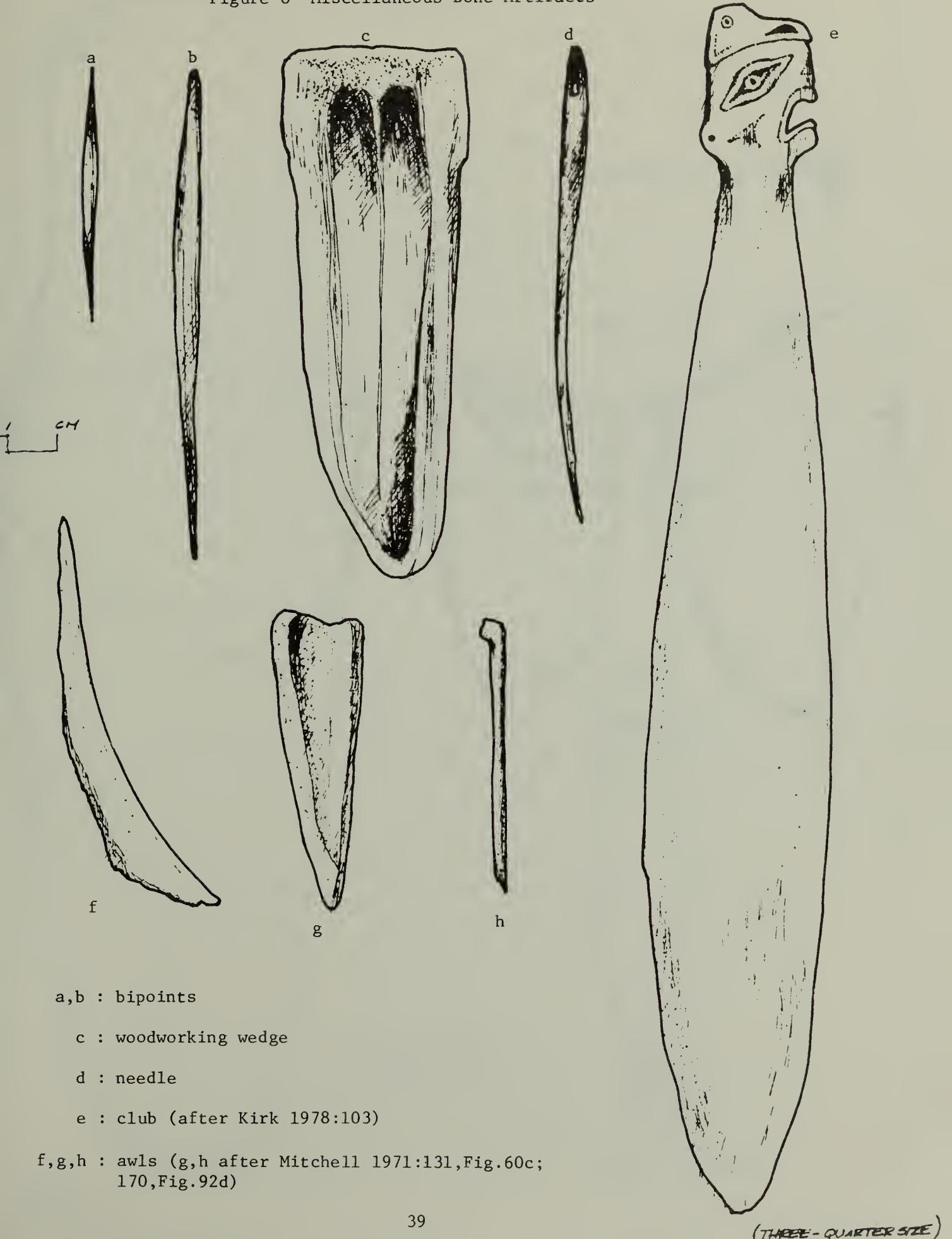
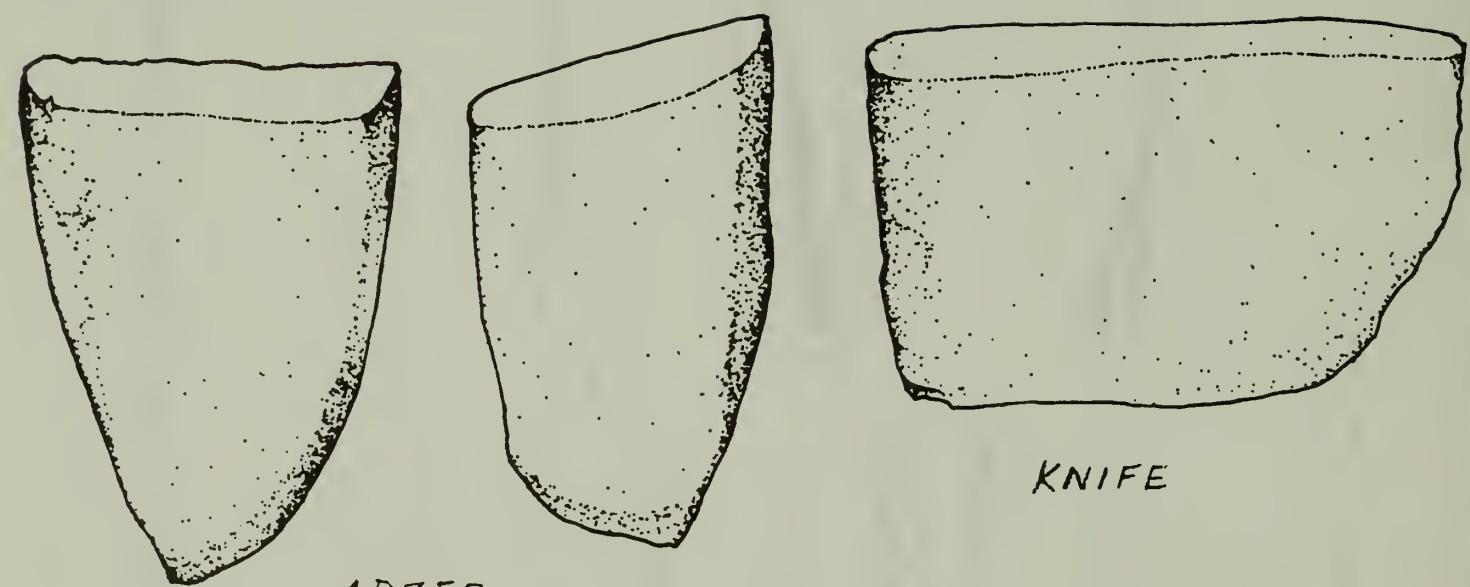


Figure 9

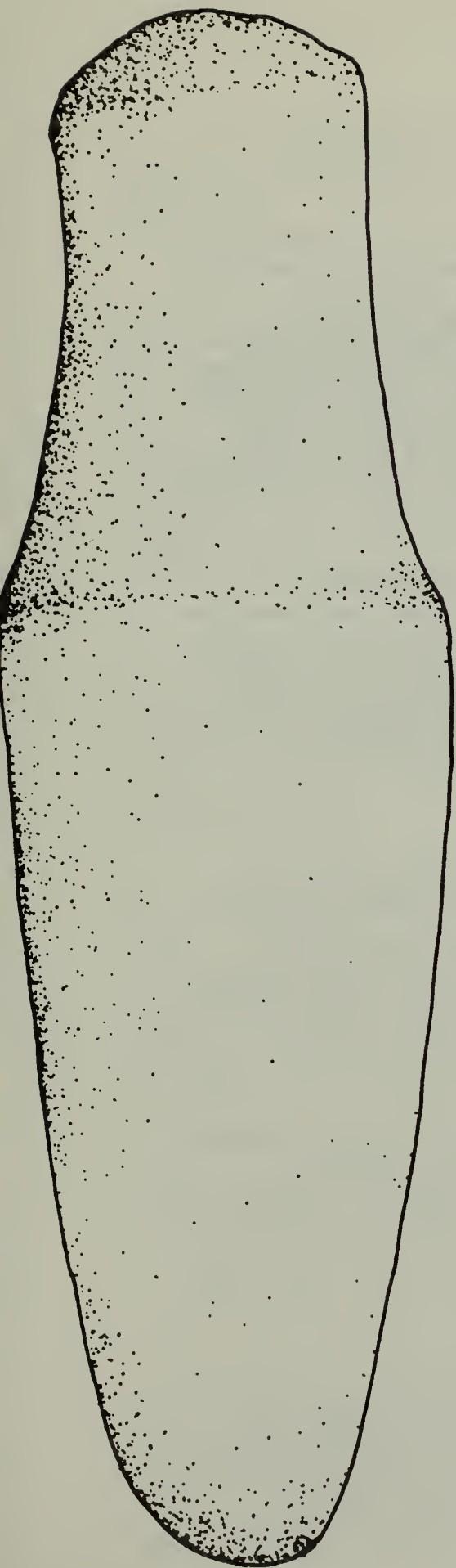
GROUND STONE



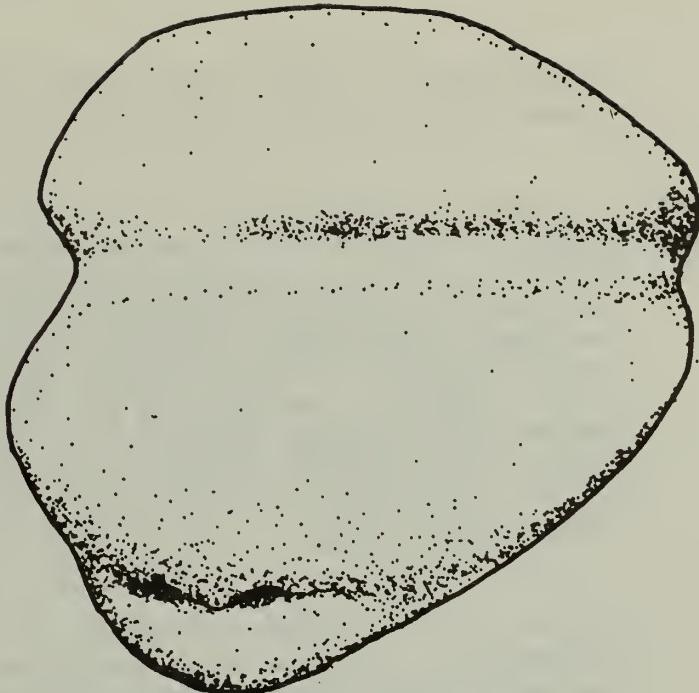
ADZES

KNIFE

Figure 10

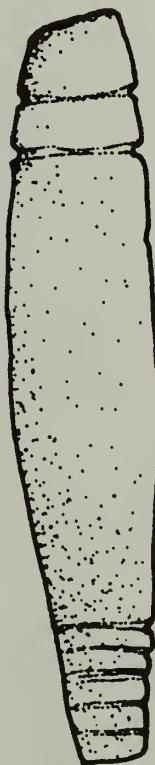


MAUL



GROOVED NETSTONE

Miscellaneous
Ground Stone
Artifacts



HOOK SHANK

scavenged on the beach rather than actively hunted offshore (Wessen 1980b).

The wooden artifacts from Hoko are highly significant and include wedges, carved projectile points, adzed cedar board fragments and wood chips. While wood-splitting technology had been in existence for many years, adzing is a more sophisticated development and permits the creation of many more items than splitting and/or abrading allow. The findings at Hoko parallel similar advances seen at about the same time in the Fraser Delta (Matson 1976; Borden 1976:253). The wooden projectile points suggest that wood may have been used as often as bone or antler, but is not showing up at other sites because of poor preservation (Croes 1976b:227).

At Hoko, the relatively substantial lithics assemblage is dominated by a chipped stone technology which has been named "the Systematic Bipolar Microlithic Technology" (Flenniken 1980:294). Small local quartzite beach pebbles were laid on anvils, broken apart with a hand-held hammerstone, and the several resultant pieces further reduced into small flakes and fragments. Suitable small flakes were then selected and hafted in split-cedar handles.

These are the only examples of hafted stone tools found at the several "wet" sites in the Pacific Northwest, and they rather obviously functioned as knives. Besides these complete knives (which are suggested to be filleting tools), many unmounted "microliths" were recovered, as well as worked flakes, small stone "wedges" (known as "pieces esquillees"), plus basalt cores and flakes. In addition to those chipped stone artifacts were hammerstones, abrading stones, net weights and a nephrite (greenstone) adze blade (Flenniken 1980:303-304).

Croes and Blinman infer the preservation and storage of surplus fish from the chipped stone "filleting knives", unhafted microliths and numerous burden basket fragments (1980:315). Elsewhere in the Northwest, the presence of ground slate knives has supported the same inference, also within this general time period (Matson 1976:304). There are no good reasons to doubt the interpretation of the Hoko Site as a seasonal fishing camp geared toward the production of a surplus.

Several other coastal sites have been radiocarbon dated to the Early Maritime Period. They are: the Ozette Site (date from Cannonball Island), 2010 ± 190 B.P. (Gleeson and Gross 1976:14); Sand Point, 1600 ± 25 B.P. and 2250 ± 75 B.P.; Tongue Point (west of Port Angeles), about 2200, 2600 and 2700 B.P. (G. Wessen, personal communication, 1982). None of these sites, which are

all shell middens, have been investigated beyond test excavations, and similarly lacking is adequate written documentation. Certain impressions, however, seem appropriate to this discussion.

All of those sites are at locations now well above the present high tide lines on bluffs or old sea terraces, suggesting: 1) the possibility of a relatively raised sea level (assuming that, like later shell middens, they were on the beach), or 2) sites were located on bluffs or higher ground for some now unclear reason. Whatever the case may be, it is easy to understand why coastal surveys have primarily detected the more recent sites. As Daugherty and Fryxell noted, "It is obvious . . that the location of early archaeological sites along the coastal strip . . may bear little or no relationship to present shoreline configuration (1976:21).

The function of these several sites is unknown and, in general, they contain the same material found associated in later shell middens on the northern Washington coast: shell, sea mammal bones (fur seal remains at Ozette and Sand Point), charcoal, ash lenses, fire-cracked rock and a few artifacts. Artifacts are usually bone and are typically small bone points or bone woodworking wedges.

Two of the above sites (Tongue Point and Sand Point), like the Hoko River Site, contain chipped stone. As mentioned previously, Tongue Point yielded 2 large basalt projectile points and a large ground slate point fragment, although they were surface finds and not associated with any chipping debris (Fred Pennoyer, personal communication, 1982). Also observed at Tongue Point were a whale-bone wedge and several small cobble spall tools indicative of bipolar percussion. Wessen has tested Sand Point and unearthed chipped stone and ground stone artifacts and debitage. Raw materials noted were quartzite, basalt, cryptocrystalline silicate and slate. Lithic reduction techniques, according to Wessen, probably included simple or direct percussion, pressure-flaking, bipolar percussion and grinding (Wessen 1980b:8; personal communication 1982).

Non-shell components are known from three sites on the coastal strip, with associated lithics. One underlies the shell midden at Sand Point. Daugherty and Fryxell report that "percussion flaked choppers" were found in the oldest of six major cultural units at Ozette (1967:12). Likewise, Newman briefly mentions the discovery of "graywacke choppers" in an underlying non-shell layer at Toleak Point, a late-prehistoric/historic site on the Park's coastal strip (1959:90). It doesn't seem unreasonable to suggest that such components represent different seasonal use, or brief, initial occupations of favorable locales, perhaps by small

groups who made and discarded simple tools out of whatever stone was available.

Several technological trends emerge from the data on Early Maritime sites, especially the highly significant Hoko River Site. Chipped stone inventories become greatly reduced in comparison with earlier periods of prehistory, in terms of the quantity and the variation in tool types. This trend, which is supported by Fraser River data, may have begun sometime during the Middle Prehistoric Period. Very basic techniques, such as bipolar percussion and direct percussion are applied in an ad hoc fashion, using locally available materials.

Woodworking is greatly enhanced and highly developed, largely by ground stone adzes which augment the more ancient wood-splitting technology. This refinement is highly significant to the future development of wooden tools, wooden containers and water craft. Fishing technology has been greatly elaborated, with both deep-sea and riverine fisheries available for exploitation. The quantities of fish remains and processing tools at Hoko suggest the possibility that surpluses of fish were caught, processed, preserved and stored for use in the winter (Croes and Blinman 1980). Although no cedar plank house remains have been found for this period, there is little to suggest that they didn't exist.

The oldest extant shell mounds on the coast date to this period, usually in locations somewhat elevated above present sea level. Prominent in the middens are numerous sea mammal remains from off-shore species, such as fur seal, porpoise and whales.

All of these trends clearly point to the potentiality for increased human populations living along the coast and rivers, moving to exploit seasonal resources, but being easily capable of transporting themselves and large surplus catches to favored locales. It is not known with certainty whether or not those developments were manifest throughout the Peninsula during this period. Similar developmental trends elsewhere in the greater Northwest suggest that they may have been.

Prehistoric Northwest Coast Pattern: 1000-200 B.P.

This period commences with the presumed advent of large, multi-season villages composed of substantial cedar plank houses and ends with the landing of Spanish sailors near the Hoh River in 1775 (the earliest recorded white contact). Technologically, this period is probably very similar to the Early Maritime except

that chipped stone virtually disappears from coastal shell middens (see Figures 7-10 for examples of artifacts from this period).

We see in the last 800 years of prehistory the complex elaboration of a cultural pattern rather securely based on a wide array of food resources, mostly faunal. The archeological record reflects as well the beginnings of a dramatic, stylized art form and shows clear evidence for social status differentiation and individual economic specialization.

The vast bulk of information regarding the Prehistoric Northwest Coast Pattern, as it is expressed on the Olympic Peninsula, comes from the partially water-logged Ozette Site at Cape Alava. There, cultural deposits span at least 2000 years, although only the last 450 years of occupation have been described in any detail.

Ozette was a large village which was probably occupied throughout the year. Known from historic photographs and ethnographic testimony to have consisted of up to 20 houses, its midden is over one-half mile in length (Daugherty 1970). Other large contemporaneous sites on the coast similar in size and function to Ozette may have been located at Sooes and Neah Bay (Makah Reservation) and La Push (Quileute Reservation) (Wessen 1980b:16).

As evidenced at Ozette and most other shell middens on the Park's coastal strip, sea mammal hunting was of great importance, as was the gathering of shellfish and deep-sea fishing. Whale hunting is dramatically documented by vertebrae with broken-off mussel shell composite harpoon blades imbedded in them. The majority of sea mammals hunted, however, were fur seals (Gustafson 1968).

Principal fish species taken were halibut, salmon and ling cod. Fully eighty species of shellfish have been found at Ozette, although 80% of those remains consists of six species (Wessen 1980a:58). Gleeson notes that the archaeological consumption patterns closely match those known from the ethnographic record (1980b:86).

House remains preserved at Ozette date from the historic period to as far back as 800 B.P. (Mauger 1979:53), but the most intensively investigated dwellings date to 450 B.P. The remains excavated at Ozette are those of intact households, as opposed to the usual archaeological situation. Thus, a very broad range of activities has been documented at Ozette, including stone and shell grinding, wood working, bone working and, significantly,

weaving (Wessen 1980b:16).

Beyond such details of subsistence and technology, located within the houses are domestic areas containing kitchen equipment, gaming pieces, storage baskets and boxes, children's toys and carved wooden household decorations. Patternings of artifacts on the household floors indicate both nuclear family and household-wide pursuits (Wessen 1980b:17). Such collective pursuits extended beyond the household level, as has been shown by the rather elaborate drainage system between houses, which was composed of cedar plants and whale bone. The system, which diverted ground runoff water during heavy rains, has been interpreted as a rudimentary form of "community planning" (Wessen 1980b:9).

Using ethnographic analogy as an interpretive basis, researchers have found that certain types of artifacts, such as whaling gear and trophies and "knob-top" woven hats indicate the development, by this time period, of social status differentiation. Croes has suggested that such differentiation may have begun as early as 2500 B.P., if hat styles at the nearly Hoko Site are any indication (Croes and Blinman 1980).

It is clear from the studies of remains at Ozette that the use of ethnographic analogy as an interpretive basis is well justified. It has been shown there that the elaboration of technology and society, so apparent in early recorded observations of native culture, took place against a backdrop of long-term continuity and stability.

In the face of such continuity and stability, however, it may be that the pace of culture change was quickening, not only at Ozette but elsewhere in the Pacific Northwest. As mentioned previously, weaving tool assemblages have been unearthed at Ozette, suggesting that a shift from simpler cedar bark fabric to more complex materials and techniques was underway. In addition, iron tools (chisels and knives) have been recovered from later prehistoric or protohistoric levels at Ozette and also at White Rock Village, two miles south along the coast (Kirk 1978; Guinn 1962:17).

The source of iron in the greater Northwest has been attributed to contact, trade with Eskimos (Drucker 1955:190), or shipwrecks along the coast. Ellis notes that there are at least eleven recorded shipwrecks of Japanese vessels on the Pacific Northwest Coast, several of them occurring off British Columbia and Washington (n.d. :48). Whatever their ultimate source, iron tools were well known to, and much desired by, the Indians of the Northwest Coast at the time of white contact.

Other late prehistoric shell middens along the coast can offer little in the way of prehistoric interpretation beyond what can be learned from Ozette. Wessen has characterized the contrast between "wet sites" like Ozette and Hoko and the more numerous "dry" shell middens. In contrast to the many perishable artifacts found in wet sites (which comprise up to 80% of the total artifact inventory), dry middens yield rather meager data:

"Small collections consisting largely of nondescript bone points and small numbers of other bone artifacts, ground stone and ground shell characterize the recovered sample from most northern coastal sites"
(Wessen 1980b:7).

Toleak Point and White Rock Village, both on the Park's coastal strip, are two such middens, and were the only other published excavations undertaken on Park land. Both have been interpreted as probable seasonal resource procurement sites, and reflect an economy based on shellfish gathering and sea mammal hunting. Both sites, in addition, have historic components, where iron nails, glass and ceramics were found in addition to typical late prehistoric assemblages (Newman 1959:89; Guinn 1962, 1963:74).

As has been noted, the archaeological record of the Olympic Peninsula reflects a strong coastal bias. From the ethnographic record, which has been shown to be quite reliable, we know that there were numerous "village" sites, both large and small, on the several rivers draining the Peninsula.

A number of those sites were apparently located on what is now Park land, and probably some had prehistoric components. No prehistoric riverine sites have yet been documented, although they must have existed. For the present, it must be presumed that the late prehistory of riverine settlements and associated sites reflects, in general terms, the ethnography of the several native American groups who inhabited the area at the time of white contact. The following section deals with that subject.

IV. OVERVIEW OF NORTHWEST COAST CULTURE

Introduction

A number of distinct Native American groups lived in and utilized the resources of the area now encompassed by Olympic National Park. While they have now come to be known by "tribal" names, the evidence suggests that at the time of white contact, which occurred at different times for different groups, they identified themselves primarily with their languages, or the named river drainages or general geographic areas within which they lived and worked. It is evident that the social units of paramount importance were the household and the village. There was no formalized, political tribal structure per se. However, for the sake of convenience, this study will refer to those groups by the names which were formalized through the several treaties of 1855.

Culture change subsequent to white contact was rapid, extensive and in some instances, devastating. The aboriginal cultural patterns which had prevailed for so many centuries were faced with a series of challenges of such magnitude that collapse of much of the structure of native culture was unavoidable. For instance, Indian medicinal practices could not cope with Euro-American diseases such as smallpox, measles, whooping cough, or tuberculosis. White technology was seen as superior and desirable, and this in turn promoted very rapid native economic reorientation. Traditional subsistence activities began to be replaced by activities oriented toward the procurement of increasingly available white trade goods, such as blankets, metal cooking vessels, glass beads, metal tools and the like. Settlement patterns shifted, and the earlier white explorers and

traders were followed by missionaries and settlers who obviously had no intention of leaving.

None of the groups to be discussed in the following sections were studied by trained observers prior to the onslaughts of European disease epidemics which reduced the native populations so greatly. Therefore, it is not known to what extent disease affected the structure or expression of their cultures. Most of the Olympic Peninsula groups were recorded by twentieth century ethnographers whose principal informants were Indian elders born well after the period of initial white contact. In describing aboriginal lifeways, then, those elders were describing the culture of their parents' or grandparents' time. We are fortunate that strong oral traditions about those cultures persisted in spite of white domination and in the general absence of written documentation.

By necessity, then, this summary of native culture must take the view that the descriptions approximate life as it was known at and shortly after the time of contact. It is beyond the scope of this study to present detailed ethnohistories of each native group. However, events and trends in early ethnohistory will be highlighted when they seem particularly illustrative.

Northwest Coast Culture Area

The Pacific seaboard from Yakutat Bay on the Alaska panhandle to Cape Mendocino in northern California is the area commonly referred to by researchers as the Northwest Coast culture area. Within that general area there was a great deal of regional and local cultural variation, expressed as mutually unintelligible languages and differences in economic orientation, material culture, social structure, and religious or spiritual belief systems. In general, however, it can be said that most Northwest Coast Indians were water oriented people who lived in cedar plank houses and relied for subsistence primarily on the abundant and usually reliable runs of several species of Pacific salmon, which spawned in the many rivers and streams emptying into the ocean.

Within the greater Northwest Coast culture area there also lived people whose subsistence pursuits emphasized the hunting of land animals and gathering of wild root crops, as well as groups with truly diversified hunting/gathering/fishing economies. Economic orientation in large measure was expressed as a functional adaptation to the particular environment within which a given group of people lived.

Because of differences in resource distribution and cultural traits (some of which will be discussed below), that culture area has frequently been subdivided into the "Northern", "North-Central" (or "Central") and "Southern" coastal areas. The native groups of the Olympic Peninsula, southern Vancouver Island, Puget Sound, the lower Columbia River and the southern British Columbia coast have traditionally been included in the "Southern Coast" in the anthropological literature. General aspects of Southern Northwest Coast culture, as they pertain to Olympic Peninsula native groups, will now be discussed before those groups are described individually.

Settlement Patterns

Despite their differences, Olympic Peninsula native people shared many cultural features which are noteworthy. At the time of white contact, all groups lived at least part of the year in villages composed of from one to twenty dwellings, although most villages contained only a few such structures. Houses of all settlements, large and small, were usually lined parallel to the beach or river bank (see Plate 2). Those more-or-less permanent villages were really wintertime aggregations of households. Some of them appear to have supported year-around occupations, depending on what food resources were available in their immediate vicinities. In general, however, food resources utilized by Southern Northwest Coast native people were widely scattered, both in time and space, across their territories, and in wintertime their availability and accessibility was limited (Singh 1956; Abbott 1972). Food surpluses generated during the late spring, summer, and fall supported winter village life. Winter houses were normally large, multi-family residences constructed of posts and beams and sheathed with split and/or adzed cedar planks. The dirt-floored houses were as large as 30 X 60 feet, although some were reportedly over 100 feet in length. Inside, the two to six related nuclear families who shared the house each had their own individual sleeping areas and cooking hearths. Benches of wide cedar planks lined the walls and served as beds or seats. Personal belongings and equipment were stored in cedar boxes and baskets or hung from beams. Food was prepared by stone-boiling in wooden vessels, roasting, or steaming over heated rocks. Generally speaking, the largest winter villages were located at or near the mouths of major salmon-spawning streams, although as we will see, the Makah settlements were an exception.

During other times of the year, the winter villages dispersed, and households or individual families moved to small "villages" or camps located at an area of seasonal food resource availability and exploitation. At those smaller camps, which

Plate 2



Historical Photography Collection
University of Washington Libraries
Photographer unknown.

Ozette Village (c. 1890)

Older style houses have horizontal planks
and "shed" roofs; in left foreground is
hulk of Austria, shipwrecked in 1877.

might be sited at a particularly productive salmon fishing spot, hunting or berrying ground, shellfish gathering area or camas prairie, temporary structures were erected for shelter. Several types of temporary shelters were constructed, ranging from brush or driftwood lean-to's to rectangular or square huts framed with rough-hewn poles and covered with mats (see Plate 3).

Occasionally, families erected cedar plank houses at those seasonal sites and left them in place. Houses from one location were sometimes disassembled and transported by canoe to another location where they were reassembled.

Transportation

By and large, because of environmental constraints, the horse did not play a major role in Southern Northwest Coast culture. Most travel was by foot or dugout canoe. Canoes were usually made from Western red cedar logs which were split in two lengthwise with wood or antler wedges. The halves were hollowed out by burning and adzing, the outside was roughly shaped, and the preformed hull was dragged to the nearest appropriate water course where it was usually floated to a habitation site and finished. There were about six different sizes and styles of canoes, ranging from small, inland waterway "shovel-nosed" types to large ocean-going canoes up to 60 feet in length. Often, when transporting large loads, cedar planks were lashed between two canoes.

Paddles and sails were used to propel canoes, although it is unknown whether or not sails were used before being seen on European vessels (Gunther 1962:11). Sails were initially made from wooden slats or cedar bark mats, but canvas or flour sacks sewn together were used as soon as those materials became readily available (Eells 1971:643). It may have been that sails were observed on shipwrecked Japanese vessels, which have also been suggested as a source of iron found at late prehistoric archeological sites (Ellis n.d.).

Technology

Native people on the Olympic Peninsula were masters of highly elaborated and sophisticated wood and bone working technologies, and also worked to a somewhat lesser degree with stone and shell.

Wood, primarily cedar, spruce, alder, and maple, was split, adzed, carved, or abraded into an impressive array of structures, tools, weapons, eating and drinking utensils, boxes, religious

Plate 3



Historical Photography Collection
University of Washington Libraries
Photograph by Edward Curtis

Skokomish Summer Mat House (c. 1910)

and ceremonial paraphernalia, and art work. Tree bark and roots were processed into fabric, cordage, or basketry materials. It is impossible to overestimate the role of wood in Northwest Coast culture.

Bone, from birds and land and sea mammals, was crafted into whistles, needles, awls, clubs, digging sticks, woodworking wedges, chisel blades, projectile points, combs, fishhook barbs, jewelry, and barbed harpoons. Antler was used for composite toggling harpoon "valves" and woodworking wedges.

Stone and shell were used less extensively, but were nonetheless important. Stone was pecked and/or ground into net weights, hammers, mauls, fish knives and jewelry. Shell was ground and shaped into harpoon arming elements, knives and jewelry. Iron from prehistoric contexts has been mentioned, and it was also observed in native use by 18th century explorers and fur traders. It was highly prized by native craftsmen and used primarily for woodworking tools and weapons. Copper of unknown origin was also known and crafted mainly as jewelry.

Subsistence

Most Native American economic systems on the Peninsula were based on a surplus of fish, both deep-sea and anadromous species. Fish were taken by a variety of methods, including hook and line angling, netting, lattice-work weirs, traps and spearing. Surplus fish were smoked and sun-dried and stored for use during the winter.

Surplus was also generated by the intensive gathering of a great variety of shellfish, which were dried and stored. Their role as a nearly inexhaustible protein resource is sometimes overlooked. Borden has powerfully argued for the role of intertidal resources in his modeling of the development of Northwest Coast prehistoric cultures (1975, 1979). After white contact, dried clams were sold in large quantities by the Indians to the early Euro-American residents of the Peninsula.

Sea and land mammal hunting was pursued in varying degrees by all the native groups in the area. Sea mammal hunting was especially important to the various groups living on the Pacific Ocean, and will be discussed in more specific detail in the following sections. Land mammals, particularly deer and elk, were taken not only for their meat, but also for their hides, antler, and dense bone, which have been shown to be important tool and weapon media. Virtually all large birds except crows and ravens were hunted and eaten.

In terms of non-arboreal plant resources, the many, many species of berries available in the dense forests and upland areas were gathered in season. Sprouts, bracken fern roots and camas were available on the Peninsula, and were critical nutritional components. Bear grass, fireweed, and cattails were harvested intensively and employed in the manufacture of basketry and matting. Nettles and kelp were critical to exploitation of fisheries and hunting of sea mammals, being important sources of native cordage.

In terms of the exploitation and optimal use of natural resources, the native inhabitants of the Peninsula, and for that matter all Northwest Coast Indians, were highly imaginative and skillful people. The society of Northwest Coast Indians exhibited a complexity and elaboration equal to those of the resources and technology which sustained it. In the following sections, the "non-material" aspects of their culture will be highlighted.

Social Organization

Native cultures on the Peninsula were ranked societies characterized by wealth/status gradations. One's social standing tended to be hereditary, although birth was not the sole determining factor. There were essentially three classes of people:

1. "Upper class" people inherited their parents' status and were expected to maintain it. While they did not always inherit specific legal property rights, because of their status they seem to have had privileged access to particularly productive resource procurement locales. The wealthiest upper class male in a village was usually an authority figure, although that authority was not absolute. The marriage partners of high status individuals were almost always from different villages, and sometimes from different ethnic groups. Not surprisingly, upper class people always married other upper class people and their offspring continued to have privileged access to differentially distributed resources.
2. "Commoners" is a term which seems to have been synonymous with "poor" or "low class." It is not clear what proportion this group constituted in Northwest Coast societies. Commoners had no privileged access to resources, although among the Southern coastal people there were several routes to prestige which could enhance their social standing.

3. "Slaves" were those truly unfortunate individuals who were either born to slave parents or captured in war. The ownership of slaves was highly prestigious, and they performed all manner of menial tasks for their owners. The stigma of slavery was such that:

To become a slave is the most regrettable thing that can happen to a person. The unfortunate individual may be ransomed...but even then the stigma remains and may be referred to in quarrels (Barnett 1968:19).

It occasionally happened that a slave married a commoner, but their descendants would often be ridiculed or mocked as slaves (Collins 1949:306). Slavery existed in isolated areas of the Northwest Coast until the late nineteenth century, and to this day on the Olympic Peninsula, a person's slave ancestry might be mentioned in derision or as cruel humor. It has been estimated that the slave population of the Peninsula did not exceed four or five percent of the total population (Singh 1956:102).

As has been mentioned previously, Northwest Coast Indians identified themselves primarily with the household and winter village in which they lived. They didn't use family names per se, but reckoned their descent and family relationships equally through both the maternal and paternal lines. The preferred form of marriage was to someone from another village, and women usually married out of their village, while men tended to reside in their fathers' houses after marriage. Thus, people could claim relationships to numbers of people both within their village of birth and their village of residence. Marriage not only established nuclear families but created systems of economic and social obligations and reciprocity between formerly unrelated families.

For instance, a proposal to a woman usually took the form of a number of gifts presented to her family by the prospective groom's family (the quantity and quality of gifts being roughly proportional to her status). If accepted, the marriage proceeded and the woman's family was then obligated to return to the new husband's family an equal or greater amount of gifts (Elmendorf 1960; Singh 1956). Similarly, a family might make an unsolicited gift of surplus food to its in-laws in another village, which required reciprocation "in kind" at a later date. In matters of serious conflict, a family or household could call upon its blood or in-law relations for assistance. These sorts of obligations resulted in what has been termed "an interaction pattern of shifting family-based political alliances" (Powell 1981:5).

The notable lack of a more formalized political structure may have been advantageous to the native people of the Southern Northwest Coast, where resources tended to be dispersed and unevenly distributed. For instance, the normally abundant salmon runs weren't totally predictable or reliable, and shortages or even famine were reported to have occurred (Singh 1956; Suttles 1968). A certain amount of political and social flexibility helped to insure that the unevenness could be compensated for by resource redistribution, which occurred as several forms of gift-giving, payments of services, and the like (see the section on "potlatching" below).

Similarly, the systems of land ownership or stewardship practiced by the Indians helped "even-out" the distribution of resources. In theory, all of a given tribe's territory was equally available for exploitation to all members, given that permission to use a specific area was sought from the local village, individual household or family who customarily utilized it. Permission was rarely denied (Singh 1956; Haeberlin and Gunther 1930; Olson 1936). This apparently held true for everything from clam beds to individual fishing platforms on communally-owned village fishweirs. As we will see in the following ethnographic sketches, some Olympic Peninsula groups held virtually all their territory "in common," while others more clearly specified the rights of certain families to use certain locales. Whatever the case, access to a number of small sites where various food and economic resources occurred was necessary, there being "no advantage in ownership of large, contiguous blocks of land" (Abbott 1972:270).

Spirituality and Ceremonialism

Among the southern Northwest Coast cultures, there were no systematized beliefs about the cosmos, or structured hierarchies of dieties. However, the various native groups possessed highly elaborated mythologies which described their own origins and the activities of supernatural beings, such as "K'wati" (the "Changer") and the "Thunderbird," and their role in the creation of the world. There was, however, a nearly universal belief in the immortality of certain animals, especially salmon. Most native groups on the Peninsula conducted "First Salmon" ceremonies wherein the first such fish caught during the salmon run was treated ritually (Drucker 1955:140). Correct ritual treatment would ensure a good run of fish, it was believed. There were "first berry" and "first elk" ceremonies as well. Numerous taboos were connected with almost all economically significant animals. Rituals and taboos served to instill in each individual a sense of personal responsibility about such important creatures. Women's menses, in particular, were also associated with a number of taboos.

Guardian spirit power, the quest for that power, and its assistance and expression in an individual's lifetime were in total perhaps the most important aspects of native belief systems. Spirit power and the vision quest, wherein the power was usually attained, were particularly important on the Southern Coast. The concept of guardian power and its perceived effect on human life was pervasive throughout native culture. Art, dance, music, song, healing, and individual economic orientation were all seen as expressions of spirit power.

The individual spirit quest was a very private affair. Among native people of the Southern Coast, the quest often took place near isolated freshwater pools, sometimes associated with old growth cedar. Activities there in part involved bathing, submerging, and fasting.

Spirit power came to the individual in a vision or dream, and usually taught the person a song. The song was subsequently sung by the person "to bring on a state of consciousness during which communion with one's spirit power was complete" (Powell 1981:7). The song also served as a symbol to others of the successful attainment of spirit power (Joseph Waterhouse, Jr., personal communication, 1982).

Personal spirit power took any one of a number of directions. For example, it could be "hunting power," which conferred talent or skill or luck in hunting. Wealthy people had "wealth spirit power." Spirit power could assist a person in gambling. There were varying degrees of power, and very potent, meaningful expressions of it, ranging from the ability to divine the location of lost items to the ability to heal the sick. As such, it was also a way for commoners to attain prestige in lieu of inherited position or wealth (Drucker 1955:143).

Winter ceremonial activity, when dispersed kin and village groups aggregated, was another hallmark of Northwest Coast culture. There existed numbers of secret societies which performed initiation rituals and acted out supernatural legends and belief systems through dance, pantomime, and song (Kroeber 1939). Secret societies were more prominent on the Northern and Central Coast than on the Southern Coast.

Very important at winter ceremonials on the Southern Coast, and especially so among the Salish-speaking people, were spirit dances. Then, individuals acted out their spirit power by dancing and singing, and were accompanied by others in supporting roles. Such winter ceremonials were powerful integrative

mechanisms.

Prestige

Northwest Coast societies were notable for an inordinate preoccupation with prestige and wealth display, especially the Northern Coast people. Southern Coastal societies were somewhat less rigid in terms of accessibility to prestige than the more northerly groups were. It could be got by birth, spirit power or through success in warfare or economic pursuits. Prestige was essentially gauged by others in terms of 1) the strength of the spirit power one could demonstrate, 2) the amount of wealth (either real or symbolic) which one could accumulate and then give away, or 3) one's social class. To a certain degree, the three were interrelated.

Hosting a "potlatch" was an important route to prestige. The term was derived from the Wakashan word "patshatl," meaning "to give away" (Densmore 1939:89). Potlatching was a complex ensemble of events carefully staged by hosts (normally from the upper class) who invited guests to their village and then ritually gave away unusually large quantities of gifts to the assembled visitors. As a cultural trait, it was not as developed or elaborate among the Southern coastal people as it was in the north.

Invitations to a potlatch were made weeks and sometimes months in advance of the event. The arrival of each contingent of guests, who sometimes traveled great distances, was greeted with much fanfare. After several days of feasting by the host village, guests of high rank were given gifts of wealth items proportional to their individual statuses. Guests of low status (commoners) were given standardized gifts, such as a uniform number of blankets or baskets each. Gifts were distributed near the conclusion of the potlatch, along with whatever food remained.

A commoner who was particularly resourceful or successful economically could diligently accumulate wealth and give a potlatch, whereby the recipients would be obligated to reciprocate at a later date. The person's demonstrated ability to stage such a giveaway enhanced his prestige.

To claim a privilege, such as specific property rights, the use of a particular ceremony, or the granting of an ancestral name to a child of high rank, required that the claimant give a potlatch. Lower class individuals could claim privileges appropriate to their rank by participating in a potlatch given by another.

Whatever the case, to attempt to claim any meaningful privilege without giving a potlach of some sort was considered ludicrous (Barnett 1968:35). Thus, potlatches were both prestige enhancement ceremonies and also served to "legalize" privileges. In effect, they functioned as wealth redistribution mechanisms and, to some degree, as arenas for personal competition. Since one person alone could seldom afford to give a really good potlatch, it was usually done with the help of relatives and friends, and thus enhanced group solidarity (Barnett 1968).

War was another avenue to prestige, although that was not its only function. At the time of white contact, fighting between Northwest coast villages was a frequent occurrence. Several situations could precipitate warfare, including: (1) the willful decision of a person with a "warrior spirit guide" to organize and lead an expedition; (2) the refusal of a guilty party to pay a "murder indemnity" to the kin of a slain person; (3) the unauthorized use of fishing, hunting or berry picking grounds (Haeberlin and Gunther 1930:12).

Drucker makes a distinction between war in the Northern and southern geographical subareas of Northwest Coast culture. Among the Northern people, wars could involve the expulsion or extermination of a rival lineage in order to acquire its territory, slaves or property. In contrast, wars in the Southern Coastal area were more properly termed "feuds," and were generally in revenge for the killing or injury of a kinsman. (1955:136).

Success conferred prestige, as it did in warring societies throughout the New World. There were preparatory rituals before the departure of the warriors in their canoes. Targeted villages were usually approached in the dark, often with the responsibility for attacking individual households planned in advance. Enemy women and children were either taken captive or driven off. Males not taken as slaves were killed and sometimes decapitated, their heads being taken back to the home village and placed on poles as war trophies. Warfare served primarily as a mechanism for revenge and as a means to enhance prestige.

Art

One final important aspect of Southern Northwest Coast culture has to do with art. Northern coastal art is world-renowned and has been the subject of art history research as well as anthropological studies (see for example Holm 1965). Southern coast artistic expression at the time of white contact did not emphasize the carving, painting or weaving of totemic images, as it did in the north, where clans and lineages used totemic art to

publicize their descent from mythical or supernatural ancestors. Clan and lineage totemism and descent were also the primary foci of winter ceremonial activity on the Northern coast.

Southern Coast wood carving and other art forms were well-rendered but were less elaborate and less complex than the more northerly styles. Gunther analyzes the relative simplicity of Southern art in terms of winter ceremonialism and prestige. In the North, ceremonialism and prestige were expressed in symbolic carving, while in the South, ceremonialism was more concerned with spirit power, dance and song. Choreography was intricate, and "a person's esteem was measured by the number of people who followed him when he danced" (1962:33). Consonant with that individualism in the South, "art is perhaps a reflection of a closer spiritual relation between an individual and his guardian spirit, compared to the social domination of the arts of the North." (Gunther 1962:14).

Against the preceding backdrop of social organization, basic economic orientation and spiritual and artistic elaboration, the several native groups of the Olympic Peninsula will now be briefly highlighted.

V. NATIVE AMERICAN GROUPS OF THE OLYMPIC PENINSULA

Table 4 lists the several native groups who either lived in the area now known as Olympic National Park, or who were reported to have regularly used its resources. Also shown are their linguistic affiliations and approximate "territories" (see also Figure 11). Subgroups who identified themselves separately, but about whom little is known specifically, are also listed.

Makah

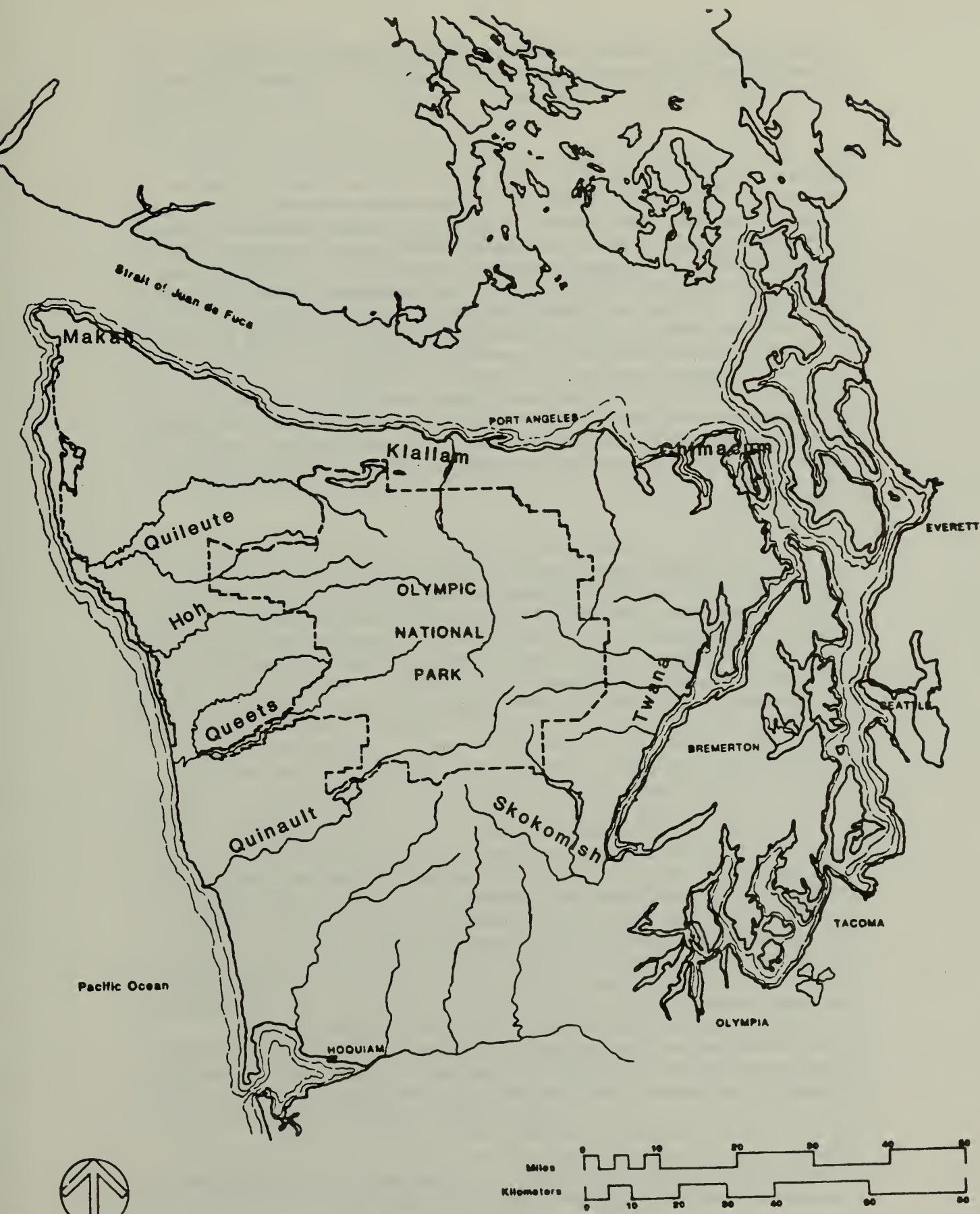
The Makah were the only group on the Peninsula who spoke a Wakashan language, and they differed in several other ways from their Olympic Peninsula neighbors. Their cultural pattern was more nearly that of the Central Northwest Coast, which also included the Nootka and Kwakiutl of Vancouver Island. Makah villages have been described as "quasi-autonomous" (Taylor 1974:7), and seem to have been politically capable of banding together in economic pursuits (such as whaling) and in warfare (Singh 1956:93). Important differences between the Makah and their Peninsula neighbors also can be found in such areas as art, ceremonialism and subsistence.

At the time of white contact, the Makah were living in five winter villages composed of shed-roof plank houses. Those villages were Baada, Neah, Tsuess, Waatch and Osett (or Ozette). White contact occurred in either 1790 (Reagan 1917:5) or 1792 (Densmore 1939), when Spanish explorers visited Neah Bay. The Spaniards, under the command of Salvador Hidalgo, established a short-lived military post at Neah Bay in 1792, which they named

Table 4
 Native Groups of
 Olympic National Park

<u>Name</u>	<u>Linguistic Affiliation</u>	<u>Territory</u>
<u>Subgroup-</u>		
Makah	Wakashan	Cape Flattery (Hoko River to Ozette River)
Ozette-	Wakashan	Cape Alava area
Klallam	Coast Salish	Southern Shore of Strait of Juan de Fuca (Hoko River to Discovery Bay)
Elwha-	Coast Salish	Elwha River drainage
Chimacum	Chemakuan	Port Townsend area
Twana	Coast Salish	Hood Canal drainage
Skokomish-	Coast Salish	Skokomish River drainage
Quinault	Coast Salish	Quinault River drainage
Queets	Coast Salish	Queets River drainage
Quileute	Chemakuan	Soleduck and Bogachiel River drainages
Hoh	Chemakuan	Hoh River drainage

Figure 11



NATIVE GROUPS OF
THE OLYMPIC PENINSULA

Port Nunez Gaona (Reagan 1917:7). By 1863, after a smallpox epidemic had forced the abandonment of Baada, the population was 663 individuals (Swan 1869:2).

While other western Olympic Peninsula groups adhered to a more "diffuse settlement pattern," the Makah used open water locales for their villages (Roll 1974:51). This was undoubtedly determined by the environment in which the Makah live, where the rivers were small, short, and comparatively shallow (Singh 1956:23). With the exception of the Ozette River, which drains Ozette Lake, salmon runs in Makah rivers were negligible. On the other hand, various sea mammals migrated close to shore in the Cape Flattery area, and highly productive shellfish beds and deep sea fishing banks were in the immediate vicinity. For these reasons, the Makah were more distinctly "maritime" in their subsistence orientation than were their neighbors. Economic mainstays were halibut, ling cod, shellfish, salmon and a variety of sea mammals (primarily grey whale, fur seal and hair seal). Wapato (wild potato) was gathered intensively (Densmore 1972:13). Land mammals were only a minor dietary constituent (Swan 1869; Singh 1956).

Whaling was a highly developed subsistence pursuit among the Makah, figuring importantly also in their social and ceremonial lives. Hunts were carefully planned by the whaler who, in addition, directed the efforts of the eight-man canoe crews and harpooned the great beast. Much ritual activity preceded the hunt, including the invocation of the whaler's specialized spirit-power and the careful observation of sexual taboos. Crews were often out at sea for days and, obviously, whaling was a risky adventure which involved great skill, courage and luck. Consequently, successful whalers were highly acclaimed men who enjoyed much prestige.

After initially harpooning the whale and then successfully dispatching it, the crews towed the animal to shore. Because of taboo, menstruating women and adolescent girls were not allowed to view the killed whale on the beach, in the fear that future hunting would be jeopardized (Waterman 1920:40). The distribution of the butchered animal by the hunter was governed by prestige considerations similar to those seen in potlatching. The hump, which was the most desirable piece, was the property of the whaler, and he sold it or gave it away because he was prevented by taboo from eating the portion. The hunter retained for his own use the tail of the animal. If other canoe crews had helped the whaler and his crew bring in the animal, they received parts of the lower jaw and tongue. The remainder was divided up and distributed by the successful whaler, who carefully remembered who received what portion. Reciprocity was expected in the future (Waterman 1920:45). The blubber of the whale was considered to be the most desirable edible portion. The meat

itself was generally eaten cold (Densmore 1972:13). Whaling was temporarily abandoned at about 1860, when fur sealing became very profitable. After fur seals were legally protected at the turn of the century, the Makah returned to whaling, but for only a short time (Waterman 1920:48).

Beyond their economic emphasis on sea mammal hunting and deep sea fishing, the Makah were set apart from their neighbors by the social and ceremonial importance of art (primarily woodcarving) in their culture. Archeological evidence from late prehistoric and protohistoric Ozette houses shows that many wooden objects both utilitarian and ceremonial were skillfully carved. Makah carving is the southernmost representative of Nootkan art. Drucker, describing Nootkan art in general terms, states that "features of . . . style combine to give great strength and force. Its impressionistic simplicity gives it . . . great strength and vigor" (1955:174). Makah interior house posts were also carved, in contrast to the undecorated posts in the houses of their Olympic Peninsula neighbors.

The remains of the dead were generally put in decorated boxes or canoes, which were placed in small grave houses or trees, accompanied by grave goods. Belongings which wouldn't fit were ritually burned, although sometimes the survivors of a highly-ranked individual gave away all the family belongings at a potlatch. Memorial potlatches were sometimes held several years after the death (Densmore 1939:33-34). Unlike other Olympic Peninsula groups, it is reported that the Makah sometimes killed slaves to accompany their deceased master (Swan 1869:10; Singh 1956:176).

Because of their geographical position at the tip of Cape Flattery, which conveniently afforded them access both up and down the Pacific Coast and into the inland waterways of the Straits and Puget Sound, the Makah were well-situated for the exchange of goods and resources with other groups. They carried on a considerable trade, taking dried halibut, blubber and whale oil north to Vancouver Island in exchange for dried cedar bark, dried salmon, dentalium shell, slaves, and canoes. Traveling south, they traded canoes, slaves, whale oil, dried halibut, and dentalium to the Quinault, Quileute, and groups as far south as the Columbia, in exchange for camas, diatomaceous earth (used in the processing of dog wool), and sea otter pelts. They sold large 10-person canoes to the Snohomish and other Indians on Puget Sound. After white contact, the Makah traded fur seal and sea otter pelts to the whites in exchange for trade goods (Swan 1869:Haeberlin and Gunther 1930:34).

Besides being far-ranging traders, the Makah were feared warriors. The Ozette Makah were often at war with the Quileute,

and may even have fought the other Makah villages from time to time (Densmore 1972:165-166). In historic times the Makah are known to have warred with the Klallam and Snohomish (Swan 1869; Haeberlin and Gunther 1930:12). They occasionally used arrows and whalebone warclubs which had been poisoned with fish gall, and sometimes wore elk hide cowls and body armor fitted with vertical hardwood slats (Densmore 1939:182).

At the present time, Neah Bay is the center of Makah population, the other villages having been abandoned in the late nineteenth century, except for Ozette, which wasn't vacated until the 1920's. Genealogies indicate that considerable intermarriage has gone on with nearby groups, especially the Nitinat of Vancouver Island, the Quileute, and Klallam (Gunther 1969).

Klallam

At the time of white contact in the early nineteenth century, there were thirteen Klallam winter villages of various sizes. Those settlements were all scattered along the south shore of the Strait of Juan de Fuca, from the Hoko River to Discovery Bay, except for one located 20 miles inland on the Elwha River (Gunther 1927:177). The majority of villages were beach sites in sheltered coves on the salt water. Population figures for the Klallam are disparate; Gunther's estimate of fifteen hundred individuals seems reasonable (1927:180).

Houses in the winter villages were of the gable-roof type, with vertical arrangement of planks. House sizes ranged from small dwellings measuring 20 X 30 feet to large "potlatch houses" up to 200 feet in length (Gunther 1927:186). The interior house posts weren't carved, as they were in Makah winter dwellings. The inheritance of Klallam houses passed to the eldest surviving son, unless the building was jointly owned, as some of the larger houses were. The land on which a house stood was considered to belong to the house owner only as long as the structure stood (Gunther 1927:188). The older house types were in use until sawn lumber became readily available in the 1870's, according to Gunther (1927:186).

The lifestyle of the Klallam was quite typical of the generalized Southern Coast pattern described earlier in this review. Their primary economic orientation was salmon fishing, and since the Klallam lived along the Strait, virtually all species of Pacific salmon were available to them, either passing through the Strait or spawning in the local streams. Trolling, netting and spearing were particularly important fishing techniques in the Strait, while lattice-work weirs with single platforms were the most

frequently used fish trap on the streams. Nighttime saw the most productive fishing at the weirs. The headman of a Klallam village owned the first and most productive weir on the local spawning stream (Gunther 1927:214). Steelhead, halibut, ling cod, and flounder were also taken, and because of the great variety of available species, fishing could be carried on throughout the year.

The Klallam living from Clallam Bay to Port Townsend traveled each year to Hood Canal for the salmon runs there, fishing alongside the Twana, with whom they had peaceful relations. When at their seasonal camps the Klallam dwelled in rectangular, gable-roofed rushmat summer houses.

Waterfowl were hunted extensively, being caught in large nets suspended from poles as they flew in to land on sand spits along the Strait. Ducks, swans and geese were also hunted at night from canoes, the hunter using a long-handled net. Other large birds, including eagles and seagulls, were also eaten (Gunther 1927:205).

Land mammals were of minor importance as a protein source for the Straits Klallam, although there was a great demand for hides, bone and antler. Consequently, each village had at least one individual who specialized in deer and elk hunting, and who was normally rather prosperous. Each village had another specialist who engaged in sea mammal hunting. Whales were not actively hunted, as among the Makah, but were pursued only when sighted by chance in the Strait (Gunther 1927:204).

The upper Elwha Klallam lived in a winter village a considerable distance up the Elwha River, at a site which is now under Lake Mills in Olympic National Park. Ethnographic evidence about the upper Elwha people is scanty, but since they lived in upland country, it is likely that their economic orientation differed from that of the Klallam living along the Strait. They undoubtedly hunted in the elk summer range in the Olympics and fished the river. Eells reports that the upper Elwha were feared by the Skokomish and other Twana groups, who believed that the Elwha collectively possessed a dangerous spirit power which they obtained at a small lake high in the mountains (1971:673). According to Gunther, the upper Elwha were often at war with the Quinault (1927:272). If this was indeed the case, such contact may have occurred in the Olympic Mountains.

Like the Makah living in the west, the Klallam were warlike people, and their name in fact is derived from a phrase in their language meaning "strong people." The people of Puget Sound and southern Vancouver Island regarded the Klallam as especially

fierce warriors, and in every Klallam village, tall poles were erected for the display of enemy heads. Although most wars were fought for revenge, the Klallam occasionally conducted slave raids, their primary targets being the Puget Sound villages. The Klallam themselves were frequently raided by groups from the north, and several of their villages were stockaded for defense, according to Gunther (1927:184). At the time of white contact they were expanding their territory and were asserting claim to land formerly occupied by the Chimacum, a now-extinct group who lived on the Quimper Peninsula.

Chimacum

The Chimacum, a little-known group, spoke a Chemakuan language related to that of the Quileute and Hoh, who live on the Pacific Coast. Chimacum territory at the time of white contact was restricted to the Port Townsend area, and the number of winter villages they formerly inhabited is not known. The Chimacum may have suffered severe disease attrition in the early nineteenth century. By the middle of the century, their last known village site on the Olympic Peninsula was occupied by Klallam-speaking people (Gunther 1927:177) Klallam occupation of their territory probably occurred after the Chimacum were massacred by Suquamish Indians under the leadership of Chief Seattle in 1856 or 1857 (Powell 1981:5). Powell and Kinkade have presented linquistic evidence which suggests that at one time much of the northern Olympic Peninsula was occupied by Chemakuan-speaking people (1976).

Why the Chimacum seem to have experienced so much animosity from their neighbors is not clear, although the following quotation hints at possible explanations:

"the number of large scale attacks against the Chemakum suggest that they greatly provoked the other groups and also that they could not have been closely bound by kinship ties or by other social bonds to any of the other groups" (Collins 1949b:150).

The cultural isolation of the Chimacum has also been noted in a recent report concerning a probable Chimacum burial from Indian Island, off the Quimper Peninsula:

"The indications thus far are that the Chemakuan speakers, as probably represented by this individual, were a separate population with cultural barriers sufficient to maintain a separate genetic identity..." (Onat and Haversat 1977:21).

Whatever the cause, the Chimacum presence on the Olympic Peninsula was negligible by the time of white contact. We must assume that their economic orientation was similar in broad outline to that of their immediate neighbors, the Klallam and Twana.

Twana

Twana-speaking people inhabited the entirety of the Hood Canal drainage, living in about thirteen winter villages during the early nineteenth century. Groups living in only one winter village each included the Dabop, Quilcene, Dosewallips, Duckabush, Tahuya, Duhlelop, Hoodsport, and Vance Creek Twana. The Skokomish Twana were the most populous group, residing in five or six villages along the navigable stretches of the Skokomish River (Elmendorf 1960:263). The other Twana villages were sited at the mouths of streams on Hood Canal, except for the Vance Creek community, which was an inland settlement on a tributary of the south fork of the Skokomish. Winter villages consisted of two to four gable-roofed plank houses and often included several smaller shed-roofed houses as well. The seven villages on the Canal and the Vance Creek settlement were all locally autonomous social units who identified themselves as distinct ethnic groups, while the Skokomish villages were semi-autonomous and have been referred to as an "extended village community" (Elmendorf 1960).

Within the Twana speech community there was considerable variation in terms of economic orientation, settlement patterning, and social structure. The groups living on the shores of Hood Canal were primarily oriented toward salmon fishing and the intensive gathering of shellfish. They were very similar in adaptation to the Klallam in that the hunting of land mammals played a relatively minor subsistence role (upper Elwha Klallam excluded). Nonetheless, there were some land mammal hunting specialists, as well as waterfowl and sea mammal hunters, each of whom were imbued with their own sets of spirit powers (Elmendorf 1960:86).

The Skokomish Twana were also primarily salmon fishermen, but land mammals were of importance in their diet. The Skokomish were capable of multi-village organization, and in the late summer or early fall banded together to hunt elk at the headwaters of the south fork of the Skokomish River in the Olympic Mountains. Communal elk hunts required close coordination, and in those instances, the headman of the most highly-ranked Skokomish village served as the overall hunt leader who exerted direct control over the other villagers (Elmendorf 1960:401). The headman was assisted at times by specialists

whose spirit power enabled them to slow down or weaken the game. The elk meat taken in communal hunts was dried over low fires in the mountains and stored in raised cedar plank caches until it could be transported to the winter villages (Elmendorf 1960:120). The Dosewallips Twana may have conducted similar elk drives in the mountains also. Elk were important enough in Skokomish subsistence that a "First Elk" ceremony took place which was similar to the "First Salmon" ceremony.

The Vance Creek Twana lived in a winter village along a tributary of the south fork of the Skokomish and were wholly inland or riverine in their habitat, never venturing to the salt water for summertime fishing or gathering. Land mammal hunting was a major subsistence activity, and they acquired saltwater food products only by trade (Elmendorf 1969:256). The Vance Creek people migrated together to a single summer village site from which individual families hunted and foraged, a distinct variation of the standard pattern of winter village dispersal. They kept few slaves and were partially dependent on down-river Twana for certain manufactured items, according to Elmendorf (1960:257). Elmendorf doesn't specify what those items were.

In general, Twana attitudes about slavery seem to have been slightly more relaxed than those of other Olympic Peninsula groups. The Twana did not practice organized slave raiding, but rather, slaves were purchased from neighboring groups or were captured from enemy raiding parties (Elmendorf 1960:345). Furthermore, the secret societies so prominent in Makah and Quileute life were relatively unimportant in Twana culture (as was the case with the Klallam).

It is rather clear from the accounts of Elmendorf (1960) and Eells (1971) that the Twana had undergone some sort of internal cultural differentiation. That is to say, different adaptive patterns had emerged within the Twana speech community, apparently in response to differing habitats and food resources. One wonders what the underlying cause may have been. Certainly, the Twana had been in the Hood Canal area for some time, because their language was unintelligible even to other Salish-speaking people. Elmendorf contends that by necessity, virtually all adult Twana were bilingual, speaking their own tongue as well as another Salish language (1960:282).

It may be that population pressure was necessitating the establishment of upriver villages on the Skokomish. Elmendorf notes that the Skokomish were the most populous Twana group, and had the most upper class lineages. There was a tendency among high-ranking Twana to construct permanent houses at their seasonal fishing sites. Elmendorf goes on to suggest that certain upper class families may have "fissioned-off" from their old winter

villages, establishing new villages at favored and already established seasonal sites (1960:317). In a similar vein, the Vance Creek people perhaps branched off from their Skokomish relatives and became further differentiated. Similar pressures may have been at work among other Peninsula native people, as we shall see in the following sections.

Quinault

The Quinault people resided in a number of autonomous communities along the Quinault River during the early historic period. They had over forty settlements, five of which were large winter villages located near the mouth of the river. Several of the upriver settlements were located within the present-day boundaries of Olympic National Park. Houses in the winter villages were oriented east to west on their long axis and had gabled roofs. The population at the time of white contact numbered between 750-1000 individuals (Wessen 1978a:32).

Their territory was well defined by the extent of the Quinault River watershed. Olson states that the Quinault identified themselves as a distinct ethnic group because of that clear territorial delineation and the differences between the Salish dialect they spoke and the languages of their neighbors, the Quileute to the north and the Copalis to the south (Olson 1936). The Quinault were a fortunate group who inhabited an area rich in a wide variety of food resources. Several species of Pacific salmon spawned in abundance up the river, and Lake Quinault supported a large sockeye run. Such abundance in part accounted for their relatively large population and numerous settlements.

In several respects the Quinault typified the Salish Southern Coast pattern. They relied heavily on salmon for subsistence and maintained a large number of weirs and traps on the river. Like several other Salish groups (and the Makah), they raised a breed of small, woolly dog whose hair was spun and woven into fabric. However, they shared several important cultural features with their neighbors to the north and south which set their culture apart from the Southern Coast pattern. For instance, because their environment included a substantial amount of prairie land suitable for grazing, they were "the most northerly coastal tribe possessing horses in pre-European days" (Olson 1936:12). In his study of Olympic Peninsula native economies, Singh noted that Quinault nuclear families had "occupancy rights" to specific portions of the large prairies, akin to ownership. Families burned-off their portions of the prairies in the springtime to enhance the growth of camas (1956:43). Camas bulbs were dug in the early summer.

A large variety of land and sea mammals and birds were available and were important dietary constituents. Whales were actively pursued in the Pacific, although not to the extent that the Quileute and Makah hunted them, since whale migration routes were further offshore in the Quinault area. As did their northern neighbors, the Quinault whalers followed rituals involving the use of human bones, in the belief that the dead had power over the great beasts (Olson 1936:46). In aboriginal times the Quinault were the southernmost whalers in the New World.

Deer and elk were hunted throughout Quinault territory, but elk were most profitably pursued in the high elevation country above Lake Quinault. In the late summer, hunting and gathering groups consisting of nuclear families moved to the mountains, where they lived in pole and brush shelters. Women gathered grass for basket making and picked berries while the men hunted (Olson 1936:41). Special spirit power was a prerequisite to high elevation elk hunting, because of the inherent hazards and difficult travel conditions in the mountains (Singh 1956:75; Olson 1936:24). Quinault hunters occasionally came into contact with their Twana counterparts (Elmendorf 1960:286).

Some of the upriver Quinault settlements apparently supported small populations of one or two families each who wintered there. The residents of those communities were regarded with some disdain by the more prosperous people downriver. Olson's elderly informants referred to the upriver people as "outlaws" who were "always seeking trouble" (Olson 1936:19). By the time salmon runs reached the upriver settlements, they were depleted in numbers. However, salmon caught upriver had excellent preservation properties, because of their low fat content (Singh 1956:24). Although living conditions upriver were difficult, small human populations could be supported through the winter months with surpluses of elk meat and long-lasting salmon.

Queets

The Salish-speaking Queets people had fifteen settlements along the Queets River, the first major drainage north of the Quinault River. Probably only one or two of those settlements could be properly termed winter villages. There is little ethnographic data on the Queets, and they are usually discussed in the literature as a subgroup of the Quinault. Theirs was a mixed economy, like that of the Quinault, and the hunting of land and sea mammals was an important adjunct to salmon fishing and shellfish gathering. Surf smelt runs were important sources of protein in the Queets' area (Singh 1956:30). During the winter months, when the smelt were running, simple huts were assembled

from driftwood on the beach for shelter. The Queets produced and traded high quality spruce root baskets, and there were important basket grass resources in their territory. Large numbers of black bear were hunted in the vicinity of the upper Queets settlements. Surplus bear meat was traded to the downriver people for salmon (Singh 1956:99). Several of the former Queets settlements were located within the present day boundaries of Olympic National Park.

Quileute and Hoh

The Quileute and the Hoh were Chemakuan speaking people who lived and worked in forty settlements of various sizes on the ocean coast and along the Soleduck, Calawah, Bogachiel, Dickey, and Hoh River drainages. According to Powell, at the time of white contact there were three large Quileute winter villages, one located at present-day La Push, while the other two were sited at the mouths of the Hoh River and Jackson Creek. There were several smaller winter settlements upriver as well (Powell 1981:5). The Hoh and Jackson Creek people are sometimes classified as distinct ethnic groups (Pettitt 1950:1; Olson 1936:12; Singh 1956). There is little specified ethnographic data on those two groups. Linguistic evidence suggests that the lower Hoh people may originally have been Quinault speakers who by late prehistoric times had become Chemakuan speakers (Powell 1981:5). At the time of contact, the Quileute and the Hoh probably numbered 500-600 individuals (Wessen 1978a:32).

The Quileute had a more diversified economy than either the Makah or the Quinault. Salmon were a mainstay in their diet, but they also hunted whales and other sea mammals, land mammals, and birds (Singh 1956:195). Large clearings were maintained so as to enhance bracken fern growth (Stallard and Denman 1955:84). Singh notes that steelhead were of particular importance to the Quileute because those fish could be caught in the winter (1956:28). Elk hunting was a very important economic pursuit and was sometimes done on an organized, cooperative basis. Hunting party leaders were empowered to designate a field butcher once an elk was killed. After the elk was dismembered, the leader was given the animal's back, and the butcher took as his share the fat from inside the carcass. The remaining meat was distributed equally among the other hunters in the party (Singh 1956:97).

Secret societies conducted important winter ceremonies. The largest society was the wolf ritual (or Blackface) society, whose members had warrior spirit power. The second largest society conducted fishing rituals, and fishermen as well as seal hunters were members. The smallest secret society was for the highly prestigious whale hunters. The weathermen society sang their ritual song in Quinault language, and the Quileute believed that

the society could predict or change the weather and could cause whales to drift ashore and predict the location. Only the elk hunters' society is believed to have been an indigenous Quileute institution (Powell 1981:9). Membership in the societies could be purchased from other members or dictated by a spirit power (Pettitt 1950:15).

Deceased upper class Quileute were placed in canoes which were set in trees, along with ritually destroyed possessions (Russell 1971:25). The Quileute customarily buried the bones of a highly-ranked relative on the first or second anniversary of the death (Singh 1956:176).

The Quileute were warlike people and were reported to have fought with each coastal tribe between Cape Flattery and the Columbia River, although their most frequent enemies were the Ozette Makah. The Quileute frequently raided other groups for slaves or booty (Taylor 1974), and James Island (off La Push) may have been a defensive position during times of war (Stallard and Denman 1955:34). The Quileute decapitated their slain enemies and displayed the heads on poles as symbols of warrior prowess.

The Quileute were yet another group who seem to have been undergoing some sort of internal cultural differentiation. Their residential settlement pattern was expanding to include areas which had perhaps been used only seasonally before. According to Singh:

"The Quileute, after white contact, were moving and settling more and more towards the upper parts of the Bogachiel, Calawah and Soleduck Rivers, and they were coming to depend more on hunting than fishing." (1956:201)

Not only was the economic orientation of the upriver people changing, but their language and perhaps even their ethnic identity may have been undergoing change. An informant stated to Stallard and Denman that "some of the upriver groups had lived inland for so long that their use of the language differed slightly from that of the coast" (1955:63). According to Pettitt, the upriver groups had become so isolated from the coastal Quileute that "their relationship to the tribe was questioned. . . ." (1950:3).

SUMMARY AND CONCLUSIONS

Most of the Olympic National Park is very wet, rugged, heavily vegetated country; these qualities give the Park its unique character, which has been preserved as wilderness or restored to its natural state by the National Park Service. The same attributes have hampered archeological endeavors in the Park, so that except for on the coastal strip, few investigations have been undertaken. Highly significant research, however has been carried out at the Ozette Village Site on the Ozette Reservation immediately adjacent to the Park, and also at the mouth of the Hoko River and at the Manis Mastodon Site (near Sequim northeast of the Park). Data from these sites have provided much of the basis for this summary prehistory.

I have divided the prehistory of Olympic into several arbitrary time periods, since there really is not enough data at this time to warrant a more sophisticated breakdown. The Early Prehistoric Period (12,000-6000 B.P.) marks the presumed first arrival of human beings on the Olympic Peninsula. Evidence from the Manis Site indicates that people were in the area shortly after glacial recession at the close of the Pleistocene Epoch. At Manis, they apparently butchered a mastodon, (a now-extinct species of elephant) which had died at the edge of a glacial pond. They and their descendants (or other human groups) may have stayed or returned periodically to the area, since there are several cultural layers at the site spanning a 6000 year time period. Until more detailed evidence is found, we must assume that those early human residents of the Peninsula were hunting and gathering generalists who lived in small foraging groups and took whatever food whenever they could find it. One other site on the Peninsula, possibly dating to the Early Prehistoric Period, has been investigated at Quilcene near the mouth of Hood Canal. There, numerous chipped stone tools were found which support a hunting/gathering interpretation.

The Middle Prehistoric Period (6000-3000 B.P.) is poorly known on the Peninsula, perhaps because many sites have been inundated or destroyed by rising Holocene sea levels or lie buried and hidden in the closed forest. Several Peninsula sites may date to that period, including the Deer Park Site in Olympic and the nearby Van Os site in Port Angeles. Well-dated findings from the Glenrose Cannery Site in British Columbia suggest that the Middle Prehistoric Period was one in which human populations were becoming progressively better-adapted to their environment. There is evidence for increased technological sophistication over the preceding period in the form of ground stone and shell adzes which indicate developed woodworking. Other lines of evidence, admittedly controversial, from Puget Sound and British Columbia suggest that both red cedar stands and Pacific salmon runs became

well-established sometime during the Middle Prehistoric Period, and that regular and sustained exploitation of those important resources was then possible.

Because of certain technological traits, I have divided the Late Prehistoric (3000-200 B.P.) into two portions--the Early Maritime (3000-1000 B.P.) and the Prehistoric Northwest Coast Pattern (1000-200 B.P.). Both periods are characterized by a subsistence orientation undoubtedly very similar to that of the ethnographic period. Evidence shows that late prehistoric people on the Peninsula were engaged in deep sea and riverine fisheries, were gathering intertidal resources intensively, and were generating food surpluses for use during the winter.

The Hoko River site is a particularly important Early maritime site since normally perishable artifacts have been found there which greatly aid site interpretation. Net and weir fragments and bentwood fishhooks attest to highly developed fishing technology. Numerous simple chipped stone tools were found at Hoko, some still hafted into split cedar handles.

The final period for this long prehistoric continuum is the Prehistoric Northwest Coast Pattern. This period set the stage for the early historic cultural patterns observed at the time of white contact. Most of the shell midden sites on the Park's coastal strip date to the latter portion of the Late Prehistoric Period, and many have historic components as well. Here we see the full development of most, if not all, aspects of the Northwest Coast pattern, and see the virtual demise of chipped stone technology. All of the subsistence pursuits of the later period are evident by this time, including whaling. Large winter villages of cedar plank houses had become common. At Ozette, the waterlogged houses which have been excavated contain complete household assemblages composed largely of normally perishable artifacts, as well as a few metal tools. The patterning of artifacts indicate status differences. What is clearly evident is that the Northwest Coast Pattern was stable and showed long continuity from the past. It was a pattern which was flexible, highly adapted and which persisted into the historic, or ethnographic period.

Finally, in the ethnographic sketches, we have seen that several native groups lived and worked within the area now enclosed by the boundaries of Olympic National park. Aboriginal use of present-day Park lands included not only the coastal margin but also the interior river valleys and high elevation country.

The native people of the Olympic Peninsula possessed patterns of culture which were similar at certain very basic material and

non-material levels. That is, they lived in cedar plank houses, used dugout canoes for transportation, and fished, hunted, and gathered wild food for a living. They were concerned with prestige and with getting into correct relationships with a spirit world which animated and directed their own lives and abilities and which intersected strategically with the resources around them. Beyond those very basic material and non-material levels, we see that the cultures of the native people of the Peninsula were as diverse as the rich and varied environment in which the people lived.

There was significant linguistic diversity on the Peninsula within which the several native groups found their particular ethnic identities. The Makah living in the Cape Flattery area were the southernmost Wakashan-speaking people and were in other ways more closely aligned culturally to native groups on Vancouver Island than to their neighbors on the Peninsula. The Chemakuan-speaking Hoh, Quileute and Chimacum were relatively small populations whose language family was restricted to the Olympic Peninsula. Chemakuan-speakers may have once been more widely distributed on the Peninsula. Finally, the Salish language family is represented by several groups, including the Klallam, Twana, Quinault and Queets people. Salish languages are widely distributed throughout the Southern Northwest Coast.

The economic strategies of Olympic Peninsula native groups were determined largely by the food resources available within their particular territories. Thus, we see that whaling and halibut fishing were mainstays of the Makah economy, while elsewhere on the Peninsula salmon fishing was preeminent. A wide variety of other animals and plants were available for exploitation although their distribution was not uniform across the environment. Such uneven distribution both in time and space was in part responsible for the generally fluid social and political structure of most Olympic Peninsula groups.

Land mammal hunting was also important in the subsistence strategies of several Olympic Peninsula groups such as the upper Elwha Klallam, the Skokomish and Vance Creek Twana, the Quinault, the Queets, the Hoh and the Quileute. Among the latter four groups, it is clear that land mammal hunting was of particular importance to the people living upriver.

What were the reasons for upriver movement? One possible explanation is that population growth supported by the generally abundant downstream food resources required the establishment of new settlements when the population of an older settlement became too large for its sustaining area. Another possible motivation for the settlement of marginally productive upriver areas might have been the desire to escape the immense stresses brought on by

white contact. Upriver areas on the Peninsula were less accessible and (initially at least) were not of particular value to the whites. Whatever the causes, upstream settlements and their economic orientation provide a glimpse at how a human population can become progressively articulated to its environment and experience culture change in the process of adapting to that environment.

Anthropological research is currently being undertaken in Olympic National Park which is intended to enhance our understanding of how, when, and where prehistoric and early historic native people used the Park land and its resources. Enhanced understanding is not only a boon to the anthropological community, but is of interest to the public. Greater understanding of aboriginal land use should help sensitize Park Service personnel to the values of cultural resources and augment the Park's interpretive programs.

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